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IN THE UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF GEORGIA
VALDOSTA DIVISION

JOSE HERNANDEZ and PRISCILLA HERNANDEZ
Plaintiffs

vs. CASE NO. 7:13-CV-91(HL)

CROWN EQUIPMENT CORPORATION
Defendant

ORAL DEPOSITION OF RUSS RASNIC

APPEARANCES:

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*** For the Plaintiffs (Via Telephone) ***

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*** For the Defendant ***

ALSO PRESENT: Ogden K. Montgomery

TAKEN BEFORE Jeff Bennett, Certified Court
Reporter, LS Certificate No. 19, Bushman Court
Reporting, 620 West Third Street, Suite 302, Little
Rock, Arkansas 72201 on April 15, 2014 at Bushman Court
Reporting, Little Rock, Arkansas commencing at 9:04 a.m.

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1 ANSWERS AND DEPOSITION OF RUSS RASNIC, a witness
2 produced at the request of Defendant, taken in the above
3 styled and numbered cause on the 15th day of April,
4 2014, before Jeff Bennett, Certified Court Reporter, LS
5 Certificate No. 19, a Notary Public in and for Saline
6 County, Arkansas, taken at the offices of Bushman Court
7 Reporting, 620 West Third Street, Suite 302, Little
8 Rock, Arkansas at 9:04 a.m.

9 S T I P U L A T I O N S

10 IT IS STIPULATED and AGREED by and between the
11 parties through their respective counsel that the
12 deposition of RUSS RASNIC may be taken at the time and
13 place designated pursuant to the Federal Rules of Civil
14 Procedure.

15 R U S S R A S N I C

16 The witness hereinbefore named, having been duly
17 cautioned and sworn or affirmed to tell the truth, the
18 whole truth, and nothing but the truth, testified as
19 follows:

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1 I N D E X

2 WITNESS SWORN: RUSS RASNIC

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1 E X A M I N A T I O N

2 BY MR. CULLEN:

3 Q. Good morning, Mr. Rasnic. How are you?

4 A. Fine. How are you?

5 Q. Just fine. My name is Tom Cullen. I represent
6 Crown Equipment Corporation. And we're here to take
7 your expert deposition today in the case of Jose
8 Hernandez v. Crown Equipment Corporation.

9 Before we go any further, are you prepared to
10 offer your final opinions that you may express if this
11 matter is tried?

12 A. Based on what I've seen until this point, yes,
13 sir.

14 Q. At any time today if you have a question, if you
15 do not understand or hear one of my questions, please
16 stop me, and I'll be glad to rephrase or repeat the
17 question.

18 A. Okay.

19 Q. If you answer a question, I believe it's fair for
20 all counsel to assume you heard the question, you
21 understand the question, and you feel you can provide a
22 truthful and accurate response. Do you think that's
23 fair?

24 A. Yes, sir.

25 Q. Okay. Roughly, how many times have you been

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1 deposed in the past?

2 A. I don't have an exact count. I'd say between 100
3 and 200 times.

4 Q. Okay. And when did you first start providing
5 expert services where you may be deposed?

6 A. I began with Ryan Engineering in 2002. So it
7 would have been sometime that year.

8 Q. Okay.

9 (Interruption.)

10 BY MR. CULLEN (CONT.):

11 Q. We had some technical difficulties. We were just
12 getting started. You graduated from the University of
13 Arkansas in 1981?

14 A. Yes, sir.

15 Q. What was your major at UA?

16 A. Mechanical engineering.

17 Q. And you got a master's there as well?

18 A. Yes, sir.

19 Q. Now, I want to go through some of your background
20 before you joined Ryan Engineering. From 1999 to 2002
21 you were the president, CEO and chairman of Halo Spark
22 Plug, Inc.?

23 A. Yes, sir.

24 Q. Did you have responsibility for, at that point,
25 designing any machinery, machines, things of that

1 A. Yes, sir.

2 Q. Okay.

3 A. Some of our stackers were motorized.

4 Q. Okay. Were your stackers ride-on equipment or
5 push-equipment?

6 A. They were walkie.

7 Q. Walkie?

8 A. Yes, sir.

9 Q. What type of forklift attachments was the company
10 responsible for making and selling?

11 A. Well, our sister company was Long Reach
12 Manufacturing. And they made all types of forklift
13 attachments. We primarily made the side shifters and
14 fork positioners for Long Reach.

15 Q. While at Rol-Lift Corporation, did you have any
16 responsibility for product design?

17 A. I did.

18 Q. For what products?

19 A. All of them.

20 Q. Okay. Did you obtain any patents while at
21 Rol-Lift Corporation?

22 A. No, sir.

23 Q. Have you ever obtained any patents?

24 A. Yes.

25 Q. In what regard?

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1 nature?

2 A. Only to the extent that they related to our
3 production. I designed the spark plugs that we
4 manufactured.

5 Q. Okay.

6 A. And the system to manufacture them.

7 Q. Is that company still in operation today?

8 A. No, sir.

9 Q. Did it go out-of-business in 2002, when you left?

10 A. We held on for another four or five years, and
11 then abandoned that probably four or five years ago.

12 Q. Okay. And before then you worked at Rol-Lift
13 Corporation?

14 A. Yes, sir.

15 Q. And where was that?

16 A. That was here in Little Rock.

17 Q. What were the primary products that Rol-Lift was
18 responsible for manufacturing and selling?

19 A. We manufactured pallet jacks, stackers, lift
20 tables, dock equipment, forklift attachments, and later
21 on some other load transfer systems.

22 Q. Okay. The pallet jacks, were they manual or
23 motorized?

24 A. Only manual.

25 Q. Only manual?

1 A. In the spark plug business.

2 Q. Besides patents relating to spark plugs, have you
3 obtained any patents for any other types of machinery?

4 A. No, sir. There were some provisional patents
5 that I had. I don't know if you know the process.

6 Q. A little.

7 A. To protect your intellectual property, until you
8 do a formal filing. I've had one or two of those that I
9 never proceeded passed the provisional stage.

10 Q. Okay. And with even with the provisional patents,
11 did any of those involve machinery in the material
12 handling field?

13 A. No.

14 Q. But the one patent you obtained -- was it one, by
15 the way?

16 A. Well, it's in several countries. It's the same --
17 essentially it's the same patent in about 10 different
18 countries.

19 Q. So the one patent you obtained in different
20 countries was related to a spark plug?

21 A. The manufacturing method, yes, sir.

22 Q. Okay. The dock equipment that you sold and
23 manufactured at Rol-Lift, what type of equipment are we
24 talking about?

25 A. Hydraulic dock boards, mechanical dock boards,

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1 edge of docks, top of docks. are you familiar with those
 2 terms?
 3 Q. Yes.
 4 A. Okay.
 5 Q. Okay. Any dock locks or anything such as that?
 6 A. No dock locks.
 7 Q. When you say you were involved in the design of
 8 all of these products, what types of work would you do
 9 on the design, what was your role?
 10 A. Okay. The primary designs were there when I
 11 arrived. I redesigned most of our major product lines.
 12 Q. Okay.
 13 A. And then --
 14 (Interruption.)
 15 BY MR. CULLEN (CONT.):
 16 Q. Now, I think you were describing some of the
 17 design modifications you were involved in regarding dock
 18 equipment?
 19 A. Yes, sir.
 20 Q. So pick up there. It may be repetitive somewhat,
 21 but give us some idea of what you did?
 22 A. Generally, I redesigned most of our major product
 23 lines. And then any time we would have an off-shoot or
 24 a special, or an extension of that line, I did those
 25 designs, while I was the engineering manager, which was

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1 about half of my career there. And then I became the
 2 operations manager.
 3 Q. And how long were you the engineering manager?
 4 A. About five years, a little under five years, about
 5 four and a half.
 6 Q. And how would you describe the difference between
 7 being an engineering manager and an operations manager?
 8 A. Engineering was -- well, my duties kept growing as
 9 engineering manager. But I was responsible primarily
 10 for the design of the products and production support.
 11 As operations manager I was responsible for the entire
 12 operation of the manufacturing plant.
 13 Q. You also indicated that you manufactured walkie
 14 pallet jacks?
 15 A. Walkie -- well, manual pallet jacks.
 16 Q. Manual pallet jacks?
 17 A. Yes.
 18 Q. Okay. Did you make any design modifications on
 19 those?
 20 A. I did.
 21 Q. What types of design modifications?
 22 A. Well, there were numerous ones. We initially
 23 went -- the industry went to a lower type. We
 24 redesigned our products to those. I introduced the
 25 four-way entry pallet trucks. Do you know what those

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1 are?
 2 Q. No.
 3 A. On a standard GMA pallet you have -- there's the
 4 primary end that you come in that has a stringer board,
 5 but there's also cut-outs in the sides of the stringer
 6 boards.
 7 Q. Okay.
 8 A. Much lower in height. And I designed that truck.
 9 I designed 9,000 pound trucks. I would say I did the
 10 number of special off-shoots of our products were in the
 11 hundreds, probably close to a thousand.
 12 Q. And that would be a certain customer wanted a
 13 special particular design for their product that was
 14 different from the standard design?
 15 A. Correct.
 16 Q. Okay. Would you have to approve all specials?
 17 A. I would.
 18 Q. Did Rol-Lift Corporation make any stand-up rider
 19 forklifts?
 20 A. No riders.
 21 Q. Okay.
 22 A. Only the walk-behind motorized forklifts.
 23 Q. Did it make any sit-down traditional forklifts?
 24 A. No.
 25 Q. I take it no riders of any kind, whether you were

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1 standing or sitting?
 2 A. Correct.
 3 Q. Okay. And from 1987 to 1988 you worked at
 4 Chamberlain Group?
 5 A. Yes, sir.
 6 Q. Was Chamberlain Group involved in the manufacture
 7 or sale of any material handling equipment?
 8 A. No, sir.
 9 Q. Did Chamberlain Group use any stand-up rider
 10 forklifts in its facilities that you know of?
 11 A. Side loaders.
 12 Q. Okay. Were they stand-up operated?
 13 A. Yes, sir. Well, let me think about that. They
 14 might have had a high-seat. I don't recall. It's been
 15 many years. I think they were stand-up.
 16 Q. Do you know the manufacturer of the side loaders
 17 that were used at Chamberlain?
 18 A. I believe they were Raymond.
 19 Q. Okay. Any Crown equipment that you recall at
 20 Chamberlain?
 21 A. We had a lot of forklifts. I don't recall any
 22 Crowns, but we may have had Crowns.
 23 Q. Would these have been sit-down or stand-up
 24 forklifts?
 25 A. Sit-down.

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1 Q. Do you recall any stand-up rider forklifts such as
 2 involved in the Hernandez case being used at
 3 Chamberlain?
 4 A. I do not.
 5 Q. Then before then you worked at TI as a project
 6 engineer?
 7 A. Yes, sir.
 8 Q. I take it Texas Instruments was not involved in
 9 the design or manufacture of material handling
 10 equipment?
 11 A. Well, they did a lot of stuff, but that wasn't one
 12 of them, that I was aware of anyway.
 13 Q. Okay. Are you aware of any stand-up rider
 14 forklifts being used at Texas Instruments, that you were
 15 aware of in your capacity?
 16 A. I'm sure there were. I supported seven different
 17 manufacturing facilities. I can't recall specifically
 18 the types of material handling equipment they had.
 19 Q. In your role at Texas Instruments, did you have
 20 responsibility for purchasing material handling
 21 equipment?
 22 A. Yes.
 23 Q. Approving the types of material handling equipment
 24 used?
 25 A. No, sir.

1 A. Industrial scissor-lift basically is the term.
 2 It's a work positioning device used in manufacturing
 3 plants.
 4 Q. And were you on a committee that was responsible
 5 for developing that standard?
 6 A. Yes.
 7 Q. What was that committee?
 8 A. That was the MH 29.1 Committee of the Material
 9 Handling Industry of America.
 10 Q. Are you currently on that committee?
 11 A. I am not.
 12 Q. How long were you on that committee?
 13 A. My entire time at Rol-Lift. Well, I think I began
 14 on '90 or '91, so nine years.
 15 Q. Has the standard changed substantially since you
 16 left?
 17 A. I don't think so. I think it had a couple of
 18 revisions. But I haven't checked what the differences
 19 are.
 20 Q. Does this standard also have an ANSI or ASME
 21 designation?
 22 A. It does. ANSI slash MH 29.1.
 23 Q. Okay.
 24 A. There was another one that dealt with tilters,
 25 which I believe was MH 30.1. But I'd have to double

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1 Q. Do you have a degree in biomechanical engineering?
 2 A. I do not.
 3 Q. Do you hold yourself out as a expert in the field
 4 of biomechanical engineering?
 5 A. No, sir.
 6 Q. Have you published any articles regarding, first
 7 of all, forklifts in peer reviewed publications?
 8 A. No.
 9 Q. Have you published any articles involving any
 10 types of material handling equipment in peer reviewed
 11 publications?
 12 A. Not that -- I was responsible for developing
 13 standards for lift tables. Those are peer reviewed and
 14 they're published.
 15 Q. Okay. We'll take away the standards for just a
 16 minute.
 17 A. Okay.
 18 Q. Have you published any publications, articles,
 19 scientific literature regarding material handling
 20 equipment that I could access?
 21 A. Not in that aspect, no, sir.
 22 Q. I take it you were involved in the development and
 23 publication of standards involving lifted tables?
 24 A. Yes, sir.
 25 Q. Describe for us what a lift table is?

1 check to make sure that that's the right number.
 2 Q. Have you been on any other ANSI or ASME committee
 3 that promulgates standards for any other types of
 4 equipment?
 5 A. I started out on the Loading Dock Equipment
 6 Manufacturers Committee that developed the loading dock
 7 standard, but I wasn't on that one very long.
 8 Q. Okay. When you say, not very long, how long?
 9 A. I think a year or two.
 10 Q. Okay. Would part of your responsibility for
 11 the -- on the loading dock committee, have included dock
 12 locks, dock boards, things of that nature?
 13 A. Dock boards, yes, sir.
 14 Q. How about dock locks?
 15 A. No, sir.
 16 Q. Okay.
 17 A. Those may have ended up in the standard, but I
 18 was -- I was gone before the standard was finalized.
 19 Q. Okay. Was one of the goals in your promulgation
 20 of standards regarding dock equipment, to make docks a
 21 safe place where material handling equipment could be
 22 used in and around them?
 23 A. I don't remember the gist of our assignment. I
 24 think our primary goal is to get a standard for dock --
 25 the dock equipment itself.

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1 Q. Okay.
 2 A. I'm sure it would have had some ancillary safety
 3 issues related to equipment on the docks.
 4 Q. And what types of specific dock equipment do you
 5 recall being involved in the standard at that time?
 6 A. Primarily the dock boards.
 7 Q. Okay.
 8 A. Or dock levelers I guess is the proper term.
 9 Q. I noted that you're a member of several societies,
 10 ASME, ASM?
 11 A. Yes, sir.
 12 Q. Human Factors and Ergonomics Society?
 13 A. Yes, sir.
 14 Q. Have you been an officer or have some title within
 15 any of these organizations listed on your C.V.?
 16 A. Arkansas Academy of Mechanical Engineers. I am
 17 the president elect for next year.
 18 Q. Okay.
 19 A. I've served on the board since '07 or '08.
 20 Q. Okay.
 21 A. And that's the only one.
 22 Q. Okay. The National Safety Council, any titles
 23 there?
 24 A. No.
 25 Q. And at the Arkansas Academy of Mechanical

1 Q. Have you ever attended any meetings of the B56
 2 committee?
 3 A. I don't think so. Long Reach was a member of the
 4 ITA. And we may have had a representative that attended
 5 through that. But I'm not sure of that.
 6 Q. Have you ever, to your knowledge, corresponded
 7 with or communicated with the B56 committee about any
 8 design or safety issue?
 9 A. I think so. But I can't recall that -- I can
 10 recall asking for clarifications of things during my
 11 career at Rol-Lift.
 12 Q. Okay.
 13 A. I may have even asked them a couple of questions
 14 during my career at Ryan Engineering.
 15 Q. Do you recall corresponding with or communicating
 16 with B56.1 regarding any of the specific standards that
 17 relate to stand-up rider forklifts?
 18 A. I do not.
 19 Q. Long Reach was an affiliate of Rol-Lift?
 20 A. They were our sister company.
 21 Q. Okay.
 22 A. We were owned by Long Reach Holdings, Inc., both
 23 of the companies were.
 24 Q. And when you were manager of engineering and
 25 operations manager, did you have responsibility for the

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1 Engineering, does it work that you start at a lower
 2 title, and every year you tend to move up the chain,
 3 secretary to treasurer to vice president to president?
 4 A. No.
 5 Q. No?
 6 A. There are different elected positions.
 7 Q. Are there?
 8 A. Yes, sir.
 9 Q. And what positions have you held within the
 10 Arkansas Academy of Mechanical Engineering?
 11 A. President elect and that's it and a board member.
 12 I've been in charge of some of the committees.
 13 Q. Any committees that relate to material handling
 14 equipment?
 15 A. Not directly, no.
 16 Q. Okay. Do you know the ANSI/ASME committee that is
 17 responsible for promulgating standards regarding lift
 18 equipment, powered lift equipment such as stand-up
 19 forklifts?
 20 A. Do I know the number of it or do I know --
 21 Q. Yeah. What is the number?
 22 A. B56.
 23 Q. And have you ever been a member of the B56
 24 committee?
 25 A. No, sir.

1 Long Reach Company as well?
 2 A. Not the company itself. There were some of the
 3 products that we produced for them.
 4 Q. Okay. Did you ever attend any ITA meetings?
 5 A. I did not.
 6 Q. But you recall that Long Reach was a member of the
 7 International Trucking Association?
 8 A. Industrial Truck Association.
 9 Q. Industrial Trucking Association?
 10 A. Right, yes, sir. Truck only, not trucking.
 11 Q. Sorry. During your tenure at Rol-Lift, do you
 12 recall objecting to having any disagreements with or
 13 complaining about any ITA standard, best practice or
 14 materials they promulgated?
 15 A. Me personally?
 16 Q. Yes.
 17 A. No.
 18 Q. Okay. Do you know if your company did, that you
 19 recall?
 20 A. I don't know.
 21 Q. What is the business function of Ryan Engineering,
 22 is it -- I understand it provides forensic services to
 23 counsel?
 24 A. That is one of your business units, yes, sir.
 25 Q. Are there other business units?

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1 A. There are.

2 Q. What are they?

3 A. There's a structural business unit. And then
4 there is other engineering outside of litigation, not
5 related to structural, which is primarily mechanical or
6 electrical, sometimes some civil. It depends on what
7 our expertise availability is.

8 Q. And how is the company broken down just by say
9 revenue? I don't need to know the revenue. But is the
10 revenue largely coming from structural engineering
11 projects, forensic services, or is it a mix?

12 A. The structural is the largest generator of income.

13 Q. Okay.

14 A. And then forensics would be second. And anything
15 else actually probably that's non-structural related
16 would come under the umbrella of the forensics division.

17 Q. And is it overwhelmingly structural or is it
18 60/40?

19 A. Let's see. I haven't ever -- it's probably 70/30
20 or 60/40.

21 Q. In your tenure at Ryan Engineering, which I
22 believe started in 2002?

23 A. Yes, sir.

24 Q. Have you been in both capacities, structural and
25 forensic, or have you stayed on one side?

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1 A. I've been mechanical. I've never -- I have done
2 some support projects for the structural side that
3 related to mechanical engineering issues.

4 Q. Okay.

5 A. But I have -- well, when I first joined it was all
6 one company. And then we kind of segregated the
7 divisions to track the revenue better.

8 Q. And I take it now you're on the forensic side?

9 A. Yeah. We actually spun off the forensic division
10 into a separate company.

11 Q. And how long have you been with the forensic
12 separate company?

13 A. Well, the separate company was spun off about
14 three years ago. I've always been part of the --
15 probably from after a year I've been associated
16 primarily with the forensic division.

17 Q. Okay. So since 2003, roughly?

18 A. Roughly, yes, sir.

19 Q. You have been affiliated on the forensic side of
20 Ryan Engineering, and then later it became a separate
21 company?

22 A. That's correct.

23 Q. And during your time doing forensic work, would
24 you also at times provide mechanical engineering
25 services to the structural group?

1 A. Yes, sir.

2 Q. Would that be a large percentage of your time or
3 just an occasional project?

4 A. It depends on the year. Generally it's a smaller
5 percentage.

6 Q. Okay.

7 A. The last year it was probably 20 percent of our
8 business was related to non-litigation related
9 engineering projects.

10 Q. And I take it that's a high number, if you looked
11 it up the last 10 years, would that be a --

12 A. Not over the last ten years, probably over the
13 last five years. Back when we were all under one
14 company, we did a lot -- we had a lot more divisions
15 related to the types of products we did, and the types
16 of services we offered than we do now.

17 Q. In 2014 what do you expect your split to be, would
18 it been 90 percent forensic, 10, would it be 80/20
19 again?

20 A. I'd say 80/20 would be a pretty good estimate.

21 Q. Okay.

22 A. It depends on how our bids go. We have a lot of
23 bids out there for machine guard projects that are not
24 related to litigation.

25 Q. Are you still involved in any design projects?

1 A. As they relate to guarding, I would be, yes, sir.

2 Q. Okay. From talking to several engineers,
3 sometimes in this capacity, sometimes just casually,
4 they tend to have areas or types of machines that they
5 have focused on or have niched expertise in.

6 A. Right.

7 Q. How would you describe your experience in terms of
8 are there certain types of machines or issues where you
9 feel you have demonstrated tremendous expertise?

10 A. I have a lot of experience with a broad range of
11 machinery, because I ran the manufacturing plants.

12 Q. Okay.

13 A. I ran two different manufacturing plants. And I
14 have a lot of knowledge of material handling and heavy
15 machinery equipment. And I do a lot of ATV accidents as
16 well for some reason.

17 Q. Okay.

18 A. My expertise is in general mechanical engineering.
19 My 20 years in industry and prior to doing this type of
20 work has been a pretty broad range of experience with
21 lots of different types of mechanical machinery.

22 Q. Okay.

23 A. And, in fact, a lot of electrical experience as
24 well.

25 Q. I want to be specific regarding stand-up rider

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1 forklifts.
 2 A. Okay.
 3 Q. Have you ever run a manufacturing facility where
 4 stand-up rider forklifts were used to transport
 5 materials?
 6 A. I have not managed a facility that had those, no,
 7 sir.
 8 Q. Have you ever personally been trained in the
 9 operation of stand-up rider forklifts?
 10 A. I'm a trainer, certified trainer of all type
 11 manner of forklifts. And I have operated different
 12 ones.
 13 Q. Okay.
 14 A. I don't know if I've formally been trained. I've
 15 been trained to be a trainer on all types of forklifts.
 16 Q. And where did you receive that training?
 17 A. That was here in Little Rock through a material
 18 handling dealer.
 19 Q. Which dealer?
 20 A. Hugg and Hall.
 21 Q. And that includes sit-down. Did it include
 22 riders?
 23 A. Yes.
 24 Q. Rider pallet jacks?
 25 A. Yes.

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1 Q. Stock pickers?
 2 A. Yes.
 3 Q. And why did you obtain that certification?
 4 A. Well, I obtained it to train our company because
 5 we had forklifts.
 6 Q. Okay.
 7 A. And then I've used it from time-to-time to train
 8 others.
 9 Q. Have you ever trained any individual in the
 10 operation of a stand-up rider forklift?
 11 A. Stand-up rider, no.
 12 Q. Did you operate stand-up rider forklifts while in
 13 your training program at Hugg and Hall?
 14 A. At Hugg and Hall, no, I did not.
 15 Q. Have you ever operated, to your knowledge, a
 16 stand-up rider forklift?
 17 A. In a production capacity or at all?
 18 Q. First of all, in a production capacity.
 19 A. No.
 20 Q. And second, I'll broaden it. Have you ever
 21 operated a stand-up rider forklift in either a forensic,
 22 I can't imagine you did it just for fun?
 23 A. Right.
 24 Q. Okay.
 25 A. I have operated several.

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1 Q. Okay.
 2 A. And several different manufacturers' devices.
 3 Q. Have you ever operated a Crown stand-up rider
 4 forklift?
 5 A. I have.
 6 Q. Before your involvement in this case, have you
 7 ever operated a Crown stand-up rider forklift?
 8 A. I think so.
 9 Q. Okay.
 10 A. I'm trying to think back of all the riders I've
 11 operated. I may have operated a Crown, but I'm not --
 12 I'm not certain on that.
 13 Q. Okay. And you can't give us any details if you
 14 did?
 15 A. No, sir. If it comes to me I'll let you know.
 16 Q. If you did, would it have been in connection with
 17 a lawsuit?
 18 A. Yes, sir.
 19 Q. Okay. And in looking at your -- at least your
 20 last four years of testimony, I didn't see any Crown
 21 cases besides this case?
 22 A. Correct.
 23 Q. So it would have been prior to that, if it did
 24 occur?
 25 A. Yes, sir.

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1 Q. Okay. Do you recall which other manufacturers of
 2 stand-up rider forklifts that you operated their
 3 equipment?
 4 A. Clark and Raymond, several Raymonds, different
 5 styles of Raymond stand-up riders, Prime Mover. There's
 6 another one.
 7 Q. Caterpillar?
 8 A. Not Caterpillar.
 9 Q. Toyota?
 10 A. I think it might have been a Toyota, yeah.
 11 Q. Okay. If you had to quantify the amount of time
 12 you've spent on a stand-up rider, would it be less than
 13 a couple of hours?
 14 A. Probably be a day total.
 15 Q. At any company you've worked with, have you ever
 16 been tasked with purchasing or making decisions
 17 regarding the types of stand-up rider forklifts to
 18 purchase?
 19 A. The Raymond side loader, but not a stand-up rider
 20 per se like you're talking about.
 21 Q. Okay.
 22 A. And you're talking only stand-up riders, not
 23 sit-down, right?
 24 Q. Correct.
 25 A. Okay. Now, when you talk about a stand-up rider,

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1 let me qualify that, clarify that. You're not talking
2 about any type of a rider stand-up, like a pallet jack,
3 for instance?

4 Q. Correct. The stand-up rider I'm referring to as a
5 forklift such as the Crown 5000 or 5200 series truck.

6 A. Okay.

7 Q. If I talk about pallet jacks, I'll say rider
8 pallet jacks.

9 A. Thank you.

10 Q. Okay. Have you ever purchased rider pallet trucks
11 in a manufacturing facility that you operated or
12 managed?

13 A. I have one in my facility that I bought.

14 Q. Okay. What's the manufacturer?

15 A. Crown.

16 Q. Do you know if it's a 4000 series or --

17 A. It's an old resistor controlled pallet jack. I'm
18 trying to remember the model number. I haven't looked
19 at it in a while. I have to find that for you.

20 Q. And what do you use it for?

21 A. Transporting materials around my shop.

22 Q. Okay. Any dock work at your shop?

23 A. I do have a loading dock, yes, sir.

24 Q. Do you occasionally use the pallet truck to -- the
25 rider pallet truck to load and unload tractor-trailers?

1 into a forklift manufacturing company products. I'm
2 just not sure which ones.

3 Q. Okay. As you sit here today, are you aware of any
4 mast system or cylinder system that Rol-Lift designed,
5 that ended up in a stand-up rider forklift made by any
6 manufacturer?

7 A. I couldn't say one way or the other. I know we
8 made mast and cylinder systems for somebody.

9 Q. Okay.

10 A. I'm not sure what kind of product they went on. I
11 should know, but I can't remember who the manufacturer
12 was.

13 Q. Okay. Now, in your capacity in this case as a
14 forensic engineer, do you have a standard retainer
15 agreement?

16 A. I do.

17 Q. Did you bring it with you today?

18 A. I did.

19 Q. Your work that you do today in a forensic setting,
20 what is the split between work you do on behalf of
21 claimants or plaintiffs and the work you do on behalf of
22 defendants?

23 A. It depends on the year, but over the years it's
24 gravitated to mostly plaintiff's work. Probably 80 to
25 90 percent is plaintiff.

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1 A. If they're not too low, yes, sir.

2 Q. Is this the type of pallet truck with just a
3 platform on the rear of the truck?

4 A. Yes, sir.

5 Q. With a handle that can be raised and turned?

6 A. Correct.

7 Q. Okay. And any accidents or injuries that you can
8 recall with the Crown PE?

9 A. No, sir.

10 Q. Have you ever designed a stand-up rider truck such
11 as the Crown 5000 series or Raymond, some of the
12 stand-up riders you've operated?

13 A. I have not.

14 Q. Have you ever designed any component part of a
15 stand-up rider forklift?

16 A. You're talking about for a manufacturer of one?

17 Q. Yes.

18 A. Not that I remember.

19 Q. Have you ever worked for any company that designs,
20 builds or manufacturers stand-up riders?

21 A. No.

22 Q. Okay.

23 A. Back to your last question. We from time-to-time
24 at Rol-Lift we built mast systems and cylinders. I'm
25 not sure if they went into -- I'm sure some of them went

1 Q. In a case involving a piece of material handling
2 equipment, forklifts, sit-down and stand-up, some of
3 which I've seen on your C.V, list of cases, have you
4 ever testified for a manufacturer in those cases?

5 A. Forklifts?

6 Q. Yes.

7 A. I have defended Rol-Lift. That was my first one.

8 Q. Okay.

9 A. I'm not sure I've been retained by a forklift
10 manufacturer, to my knowledge. I don't recall any.

11 Q. How many times as a corporate representative or an
12 engineer at Rol-Lift, did you testify on behalf of the
13 company in litigation there?

14 A. As like a 30(b)(6) rep?

15 Q. Or just even an engineer, 30(b)(6) or as an
16 engineer just as a fact witness?

17 A. I'm not sure I could -- it was only twice when I
18 worked for Rol-Lift.

19 Q. Okay.

20 A. Exclusive of the -- I was retained by the insured
21 for Rol-Lift after I left them.

22 Q. Okay.

23 A. As a consultant. And then became the expert in
24 that case.

25 Q. Do you recall the products before you left the

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1 company that you testified in defense of?

2 A. One was a pallet truck, and one was a manual
3 stacker.

4 Q. Do you recall the design issues that were raised
5 against the company?

6 A. In the pallet truck case the pump was broken, and
7 somebody used the pallet truck anyway. In the stacker
8 case they overloaded it and bent the outriggers.

9 Q. Heckuva load.

10 A. Yeah, it was. It did a lot of damage to the frame
11 as well.

12 Q. I have a few questions regarding some cases that
13 you presented us in your litigation history.

14 A. Okay.

15 MR. CULLEN: Mike, do you recall what we
16 stopped at?

17 MR. WARSHAUER: I think if you just start
18 at 70 you'll be fine.

19 MR. CULLEN: Okay.

20 (Deposition Exhibit 70 was marked.)

21 BY MR. CULLEN (CONT.):

22 Q. I'm going to mark as Exhibit 70 a listing of your
23 litigation history.

24 A. Okay.

25 Q. I have one myself here.

1 A. Yes, sir.

2 Q. Do you recall the machine that was involved in
3 that analysis?

4 A. That was a scissor-lift.

5 Q. Did you provide design opinions in that case?

6 A. I did not.

7 Q. Was that more of an accident reconstruction?

8 A. It was a maintenance related issue.

9 Q. Maintenance?

10 A. Yes, sir.

11 Q. The next case involved the Wilkerson case versus
12 Raymond Muscadine, Inc, MHS and Campbell's Express?

13 A. Yes, sir.

14 Q. Is that the Raymond that I associate with forklift
15 manufacturing?

16 A. Yes, sir.

17 Q. Did you provide design opinions in that case?

18 A. I found no design defects in that case.

19 Q. And do you recall the type of forklift that was
20 involved in that case?

21 A. Center mount rider pallet truck, center mount.

22 Q. Okay. So it was a center controlled rider pallet
23 truck?

24 A. Correct.

25 Q. Did you provide maintenance opinions regarding MHS

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1 A. All right.

2 Q. You can have that one. I had a few questions
3 regarding the -- and I did have one with some marks on
4 it.

5 A. It's this one. Maybe you want to swap. I don't
6 mind looking at the other copy.

7 Q. I'll hand you --

8 A. I have a more current version of that, if you'd
9 like it.

10 Q. I would actually, yes.

11 (Deposition Exhibit 70 was remarked.)

12 Q. I'm going to mark this one as Exhibit 70.

13 A. Okay. I think it just has one more deposition on
14 there.

15 Q. I'll give this one back to you so you can look at
16 it. I'll look at the last one.

17 A. It involved apparently a material handling device.

18 Q. That was the Norfolk Southern Railway Company
19 case?

20 A. Yes, sir.

21 Q. So I'll hand you what we've marked as Exhibit 70.
22 And I have a few questions about some of these cases.

23 On the first page there's a case where you provided
24 testimony in deposition on 4/27/10, the Brenda Wells V.

25 Skyjack --

1 and other companies?

2 A. I did.

3 Q. Do you know if that case ever went to trial?

4 A. It did.

5 Q. And you provided testimony there as well?

6 A. I did.

7 Q. Do you know the outcome?

8 A. Verdict for the plaintiff.

9 Q. Did anyone that you know of, besides yourself,
10 provide design opinions, claiming that the center
11 control rider pallet truck was defective in any way?

12 A. Not to my knowledge, no.

13 Q. If you'd turn to the next page. There's a case in
14 October of 2010, Linda Carter versus Yamaha Motor
15 Corporation. Did that case involve an ATA?

16 A. I think I'm missing a page. Mine goes to the next
17 page is 7/29/11. Say that again, what date?

18 Q. 10/15/10.

19 A. Okay. It's on the same page as this one.

20 Q. Okay.

21 A. Linda Carter versus Yamaha.

22 Q. Was that an ATA case?

23 A. Yes, sir.

24 Q. Going down the list. 8/9/11, Sexton versus Nissan
25 Corporation.

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1 A. Okay.
 2 Q. Here in Pulaski County?
 3 A. Yes, sir.
 4 Q. What type of machine was involved in your analysis
 5 in the Sexton case?
 6 A. Electric sit-down rider.
 7 Q. And did you provide design opinions in that
 8 matter, that you recall?
 9 A. I did.
 10 Q. And did you find the sit-down rider to be
 11 defective?
 12 A. I did.
 13 Q. In what regards?
 14 A. The seat switch mechanism.
 15 Q. Okay. Is that like an operator control device,
 16 presence control?
 17 A. Presence control, yes, sir.
 18 Q. Do you recall who the defense counsel was in that
 19 case?
 20 A. I do not.
 21 Q. Local or --
 22 A. I do not. I'm sure it was local. I'm just not
 23 sure who it was.
 24 Q. Down that list you have the trial testimony,
 25 Wilkerson, we've talked about that?

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1 A. Yes, sir.
 2 Q. And in looking, I didn't see other cases that
 3 jumped out at me. But just to ask a broad question. Do
 4 you recall ever providing testimony in a case regarding
 5 a stand-up rider forklift, and I have defined it, prior
 6 to this action?
 7 A. I have. Let's see. Did I get deposed on that
 8 one. To answer your question. I did not provide any --
 9 I didn't find any defect in that case. It was another
 10 maintenance related issue.
 11 Q. Okay.
 12 A. That action involving a Crown RC.
 13 Q. Okay.
 14 A. I don't think I got deposed on that one.
 15 Q. Just so I'm clear. You provided analysis and
 16 expert opinion in a case involving a Crown RC?
 17 A. Yes, sir.
 18 Q. And in regard to the case involving a Crown RC,
 19 did you find the Crown RC was defective in any way?
 20 A. I did not.
 21 Q. And you provided testimony regarding the
 22 maintenance of that truck?
 23 A. Let me see if I -- I think I actually didn't get
 24 deposed in that one. So I didn't provide any testimony.
 25 Issued a report and then it settled.

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1 Q. Do you remember the name of the case?
 2 A. Boyle versus -- it was in Philadelphia.
 3 Q. Okay.
 4 A. Or it might have been venued in New Jersey.
 5 Q. Okay.
 6 A. I can't remember who the --
 7 Q. Was it an accident where a Crown RC went off a
 8 dock?
 9 A. Yes, it was.
 10 Q. Did you find any conduct by a maintenance company
 11 negligent?
 12 A. I did.
 13 Q. Do you know what happened with that case?
 14 A. In terms of -- it settled.
 15 Q. Okay.
 16 A. I didn't get deposed in that one.
 17 Q. Did you have an opportunity to inspect the
 18 facility, inspect the scene and inspect the Crown RC?
 19 A. Yes, sir.
 20 Q. And was it your goal to determine factors that you
 21 felt could have contributed to the accident?
 22 A. Yes, sir.
 23 Q. Did you find any factors related to the Crown RC
 24 itself, the design or the manufacture of it, which
 25 contributed to the accident?

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1 A. No, sir.
 2 Q. Besides the Boyle case, are you aware of any other
 3 matter where you provided testimony in a matter
 4 regarding a stand-up rider forklift manufactured by any
 5 manufacturer?
 6 A. Testimony, no. I have a couple -- I have probably
 7 three or four still that are on-going.
 8 Q. Okay.
 9 A. There have been a couple or three others that
 10 resolved before I was deposed.
 11 Q. Have you issued reports in any other cases?
 12 A. Probably. I'd have to look.
 13 Q. In any of --
 14 A. Some of these go back a few years.
 15 Q. In any of the two or three other cases, do you
 16 recall issuing design opinion, contending that the
 17 stand-up rider forklift was designed inappropriately or
 18 defectively?
 19 A. I don't recall doing that. But the ones that are
 20 on-going now, I haven't gotten that far yet.
 21 Q. Okay.
 22 A. I don't anticipate them being a design opinion.
 23 Q. Okay.
 24 A. I'd have to think about the other ones. I don't
 25 recall issuing design opinions on the other ones.

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1 Q. Okay.
 2 A. If I have offered opinions yet in those.
 3 MR. CULLEN: Mike, this would be a good
 4 time for me to review these materials, and to
 5 figure out what you've brought here today.
 6 I'll give you a break. And you're welcome to
 7 stay.
 8 A. Okay.
 9 BY MR. CULLEN (CONT.):
 10 Q. But before I do that. You received a deposition
 11 notice in this case?
 12 A. Yes, sir.
 13 Q. Did you attempt to comply with the subpoena?
 14 A. Yes, sir.
 15 Q. Were there any aspects of the subpoena that you
 16 felt you could not comply with, in other words, I
 17 couldn't produce this because it was either too large,
 18 or I couldn't find it, or something like that?
 19 A. You asked for a list of equipment I had testified
 20 on. And I don't keep lists like that. So I didn't
 21 compile a list like that.
 22 Q. Okay.
 23 A. I think that's the only thing.
 24 Q. But you did provide your testimony list over the
 25 last four years?

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1 A. Yes, sir.
 2 Q. Do you mind if I take a few minutes to go through
 3 your materials and see what we'll mark?
 4 A. Go right ahead.
 5 Q. Now, in this notebook if I -- because I'm going to
 6 identify several for the record and not mark them,
 7 because I'm sure I have them already.
 8 A. Okay.
 9 Q. Can I pull materials out that I want to mark as
 10 exhibits?
 11 A. There's no sacred order there so have at it.
 12 Q. Okay.
 13 MR. CULLEN: Mike, probably I'll be
 14 sitting here doing it. You can take a break
 15 and stretch your legs, you can as well, and
 16 then we'll come back and put some things on
 17 the record.
 18 A. Okay.
 19 MR. WARSHAUER: Okay.
 20 (A recess was had.)
 21 BY MR. CULLEN (CONT.):
 22 Q. What I've done is destroyed your notebook.
 23 A. No problem.
 24 Q. Pulled materials out that I wish to mark and we'll
 25 put these back in.

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1 A. Okay.
 2 Q. I was not having as much success getting them back
 3 in as I hoped.
 4 A. It's touch with this notebook.
 5 Q. It is. And I'll identify what I don't mark for
 6 the record, just to know what you have.
 7 A. Okay.
 8 Q. But there's some things I do want to specifically
 9 mark as exhibits.
 10 A. All right.
 11 Q. Just to identify, for the record, I note that in
 12 your file you have the notice to take deposition here
 13 today, Crown's answers to interrogatories -- answers to
 14 interrogatories, answers to first and second request for
 15 production, the complaint, the confidentiality order and
 16 your signature page of that, you have a copy of the
 17 Crown specifications for the RR 5200 series trucks, a
 18 copy of the operator manual, a copy of your preliminary
 19 report, which I'll leave out for you in case you need it
 20 later.
 21 A. Okay.
 22 Q. You also have copies of Mr. Berry's report, a copy
 23 of Bates number 10413, which is the Crown RR and RC
 24 accident summary 2011. You also have a copy of Crown
 25 010425, which is an accident listing attached to that

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1 accident summary.
 2 A. Okay.
 3 Q. You have a copy of -- make sure it is what it
 4 appears to be. Mr. Hunt's report, dated 2/3/2014, a
 5 copy of Mr. Elrod's report of that same date.
 6 A. One of them has colored photos and the other one
 7 doesn't. That's why I kept it.
 8 Q. Okay.
 9 A. Just so you'll know.
 10 Q. And I'll mark this other one later. A copy of Mr.
 11 Rushing's economic analysis, a copy of Mr. Toliver's
 12 report, dated February 2014, and a copy of the Safety
 13 Standard for Low Lift and High Lift Trucks, ASME
 14 B56.1-2000. Did you bring any other or review any other
 15 versions of the safety standards for this truck?
 16 A. No, not for this case I did not.
 17 Q. Any subsequent versions to this?
 18 A. No.
 19 Q. So that's what I have identified.
 20 A. Okay.
 21 Q. And will not mark. And actually I'll add to that.
 22 A. Okay.
 23 Q. A copy of the operator manual, but just in its
 24 form given to operators, the "Third Edition of
 25 Kinesiology", Cooper and Glassow.

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1 A. Okay.
 2 Q. Which we'll leave here to see if there is any
 3 questions that may be generated from that.
 4 A. All right.
 5 Q. As well as a copy of Mr. Hernandez's deposition
 6 taken 10/16/2013?
 7 A. Correct.
 8 Q. Have you reviewed any other deposition testimony?
 9 First of all, did you review this?
 10 A. I did.
 11 Q. Have you reviewed any other depositions that were
 12 taken in this case?
 13 A. No, sir.
 14 Q. Now, why don't we move all this.
 15 A. Just on the ground will be fine. Actually put it
 16 in the box and put the notebook in there with it.
 17 Q. And now what we'll do is go through the materials
 18 we will mark. As Exhibit 71 I'll mark a copy dated
 19 January 27, 2014, a report from Mr. Elrod.
 20 (Deposition Exhibit 71 was marked.)
 21 Q. As Exhibit 72 a summary of Mr. Hernandez's
 22 deposition.
 23 (Deposition Exhibit 72 was marked.)
 24 Q. Did you complete the summary?
 25 A. I did not. I called it an index because it's

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1 really not a total summary of everything, it's just the
 2 points that I'm interested in.
 3 Q. And do you know who did it?
 4 A. My assistant.
 5 Q. What is his or her name?
 6 A. Her name is Shelly Parker. Just so you'll know my
 7 methodology. I will flag the pages and the paragraphs
 8 that I want on this, and then she will translate that
 9 onto this document.
 10 Q. Okay. We have a copy I'll mark as Exhibit 73 of
 11 an OSHA document, entitled, "Powered industrial truck
 12 hazards".
 13 (Deposition Exhibit 73 was marked.)
 14 Q. I'll hand you Exhibit 73.
 15 A. Okay.
 16 Q. Where did that come from?
 17 A. Off the OSHA website.
 18 Q. Did you pull that yourself?
 19 A. I did.
 20 Q. As Exhibit 74, I will note other material from an
 21 OSHA website that seemed to be related to forklifts
 22 design issues and employer issues.
 23 A. Yes.
 24 (Deposition Exhibit 74 was marked.)
 25 Q. So is that training regulations regarding --

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1 A. Plus the OSHA regulations for forklifts.
 2 Q. Okay. I'll mark as Exhibit 75 a copy of a
 3 document entitled, DVD Safety on the move.
 4 (Deposition Exhibit 75 was marked.)
 5 Q. And ask you what this document is?
 6 A. Let me see it. I'm not sure what it is. It's out
 7 of another case. I put this in there to show the
 8 control configuration of another truck that I referenced
 9 in my report.
 10 Q. Was that a Raymond truck?
 11 A. It was.
 12 Q. Okay.
 13 A. Or it is.
 14 Q. And does it show a different foot pedal
 15 configuration to what the Crown RR 5200 series has?
 16 A. It shows a different control configuration.
 17 Q. Okay. As Exhibit 76 we will mark a grouping of
 18 accident reports that are not really in any order, so I
 19 can't just identify the numbers.
 20 (Deposition Exhibit 76 was marked.)
 21 Q. And I would ask you do you know how this
 22 compilation of accident reports was created?
 23 A. I do. That came out of the -- there was the other
 24 grouping.
 25 Q. Okay.

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1 A. I asked one of my engineers to go through and find
 2 any reports that related to steering issues, and these
 3 were pulled out as part of that.
 4 Q. Just so I'm clear. Exhibit 76 is a compilation of
 5 accident reports, which you believe have indicated some
 6 steering issues?
 7 A. Yes, sir.
 8 Q. And that may have been related to an accident?
 9 A. Yes, sir.
 10 Q. Okay.
 11 A. I think they're all accident reports, and issues
 12 related to steering are part of that.
 13 Q. And who did the search to find these?
 14 A. My engineer, Ed Beard.
 15 Q. And this goes back to -- does this go back to the
 16 beginning of the Crown RR and RC series, or is it
 17 limited just, for instance, to the RR 5000 series?
 18 A. It's whatever was provided as part of the
 19 discovery, however far back it goes. I know it goes
 20 back a substantial number of years.
 21 Q. I see some of these dated back into the early
 22 nineties at least?
 23 A. Right.
 24 Q. Okay. And from these materials what did you
 25 ascertain after reviewing this grouping of accident

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1 reports?
 2 A. Primarily that there were -- that failures of
 3 steering are not an isolated incidents. They've had
 4 them before.
 5 Q. Okay. Do you know roughly how many you have?
 6 A. They're numbered. 25, I think, about 25. What's
 7 the last number?
 8 Q. 25.
 9 A. Yeah.
 10 Q. Okay. Over how long?
 11 A. Over a period of whatever number it started.
 12 Q. 40 years?
 13 A. How many years?
 14 Q. Mid-seventies to --
 15 A. Is that when they started?
 16 Q. Yes.
 17 A. Okay.
 18 Q. Okay.
 19 A. Actually it would start with whenever the first
 20 one was.
 21 Q. Sure. Right. As Exhibit 77 I'll mark a copy of
 22 the maintenance records you received regarding this
 23 action.
 24 A. Okay.
 25 (Deposition Exhibit 77 was marked.)

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1 Q. Did you find any maintenance issues, maintenance
 2 failures or negligence in the maintenance of this truck
 3 that you would attribute to some party in this case?
 4 A. No.
 5 Q. Did you review it for that basis?
 6 A. I did.
 7 Q. Do you recall who did the maintenance on this
 8 truck?
 9 A. Not without looking. But I can look.
 10 Q. Okay.
 11 A. These I think are all Lowe's work orders. So
 12 these would be done by Lowe's, the owner of the truck.
 13 Q. As collective Exhibit 78 there were three
 14 photographs that, if they're related, I can't figure out
 15 how they're related, but I'll mark them together. One
 16 is a Raymond serial number plate?
 17 A. Right.
 18 Q. And then there is a Crown serial number plate?
 19 A. Okay.
 20 Q. And then a picture of a Crown stand-up rider RR
 21 type forklift?
 22 A. Right. Two of them are related. Well, they're
 23 not all related to each other except the last two.
 24 Q. Okay.
 25 A. The last two are the first two photos of the truck

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1 that were sent to me before I inspected it.
 2 Q. Okay.
 3 A. That Raymond is one that has a pedal that's for
 4 the right foot.
 5 Q. Okay.
 6 A. That I inspected in another case.
 7 Q. Then I will separate the photos and mark these two
 8 as collective 79, which are the accident truck?
 9 A. Yes, sir.
 10 Q. Okay.
 11 (Deposition Exhibits 78 and 79 were
 12 marked.)
 13 Q. And this 78 is just a serial number identifying a
 14 type of truck manufactured by Raymond, which you believe
 15 has a different type of foot pedal arrangement in the
 16 operator --
 17 A. Correct.
 18 Q. And as Exhibit 80 we'll mark a two-page exhibit,
 19 which is the drive unit parts of the traction motor of I
 20 take it a Crown RR series forklift?
 21 A. Yes, sir.
 22 (Deposition Exhibit 80 was marked.)
 23 Q. Why did you pull these two-pages from our service
 24 and parts manual?
 25 A. I was actually trying to figure out the drive

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1 system on this. I requested this from the dealership.
 2 This doesn't relate to my opinions, other than it's a
 3 non-DC motor, it's an AC motor.
 4 Q. Okay. As Exhibit 81 I will mark an email between
 5 yourself and Mr. Ed Beard, who I take it is an engineer
 6 that works with you?
 7 A. Yes, sir.
 8 (Deposition Exhibit 81 was marked.)
 9 Q. And he is an engineer?
 10 A. Yes.
 11 Q. And this appears to be a discussion regarding
 12 accident reports involving contactors, Curtis Albright
 13 contactors?
 14 A. That may relate to another case. Should not be in
 15 this file maybe.
 16 Q. It's got Crown accident reports though.
 17 A. Okay. The bottom part related to another case. I
 18 just responded to an email asking to look for some other
 19 things, and the Crown accident reports that are similar
 20 to those other -- so that's what that's for.
 21 Q. Okay. And I take it Mr. Beard was looking for
 22 issues regarding balance, loss of power steering, change
 23 of direction and jerking type motions?
 24 A. Correct.
 25 Q. Okay. And he found, again, over the -- do you

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1 know roughly how many accident reports there were in
 2 this case?
 3 A. A lot.
 4 Q. Over 3,000?
 5 A. A bunch, yeah. Actually he and my assistant
 6 looked for those specific issues. I divided them up
 7 because there were so many.
 8 Q. It appears as he found five reports?
 9 A. Right.
 10 Q. Within that?
 11 A. Correct.
 12 Q. Do you know if Mr. Beard looked at all the
 13 accident reports?
 14 A. Well, between he and my assistant, they looked at
 15 all of them. And they're not printed out, but they're
 16 on the disk that's somewhere.
 17 Q. One of the disks here?
 18 A. Yes, sir.
 19 Q. So you did receive all of the Crown accident
 20 reports?
 21 A. Yes, sir.
 22 Q. So on these three issues, balance, loss of power
 23 steering, loss of power, change direction jerking
 24 motions, they were able to identify from their search
 25 five reports?

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1 A. Well, no. That would be coupled with the other
 2 ones.
 3 Q. The steering issues?
 4 A. These I think were found by my assistant. What I
 5 asked them to do was go through the CDs, and only print
 6 the ones out that related to those issues. Mr. Beard
 7 had those and my assistant did these for me.
 8 Q. Okay.
 9 A. Okay.
 10 Q. So Mr. Beard found these five and your assistant
 11 found the 25?
 12 A. Right.
 13 Q. Okay.
 14 A. They weren't duplicative efforts. She took
 15 one-half of the reports and he took the other half.
 16 Q. I see. Okay. So they split them up basically
 17 half and half and went through them?
 18 A. Yes.
 19 Q. So on all of these issue your assistant and Mr.
 20 Beard found approximately 30 accident reports they
 21 deemed relevant to these issues?
 22 A. Yes, sir.
 23 Q. Fair statement?
 24 A. Fair statement.
 25 Q. Okay. The next document we'll mark as Exhibit 82.

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1 (Deposition Exhibit 82 was marked.)
 2 Q. And it appears to be a printouts from Raymond and
 3 Toyota and Machino regarding different types of trucks.
 4 And just ask you what your goal was in gathering that
 5 and what relevance that may have here?
 6 A. These were all trucks that had a right actuated
 7 brake pedal.
 8 Q. Right.
 9 A. Foot actuated brake pedal, stand-up riders.
 10 Q. From your review and analysis of other
 11 manufactured data and review of the internet, did you
 12 find many other stand-up riders that have a left foot
 13 brake?
 14 A. I did.
 15 Q. Would you agree with me that there are many more
 16 manufacturers and trucks out there with a left foot
 17 brake than a right foot brake?
 18 A. I don't think, based on what I see, I could make
 19 that assessment.
 20 Q. Okay.
 21 A. I know there are right foot actuated ones and left
 22 foot actuated ones.
 23 Q. Do you know either way, do you know the relative
 24 comparison of the numbers of trucks, for instance?
 25 A. I do not.

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1 Q. And do you know how many stand-up riders are
 2 basically being used in the United States warehouses
 3 today?
 4 A. I do not.
 5 Q. Do you know what percentage of those have left
 6 foot brakes?
 7 A. No.
 8 Q. Do you have an opinion whether or not any stand-up
 9 rider truck equipped with a left foot brake -- very bad
 10 question. I'll start again.
 11 Do you have an opinion regarding whether all
 12 stand-up rider forklifts that are manufactured with a
 13 left foot brake pedal or button, whether all of those
 14 are defective and unreasonably dangerous?
 15 A. I don't have that general opinion because I
 16 haven't studied it.
 17 Q. Okay.
 18 A. There are some that have -- for instance, there's
 19 a left foot actuated machine. And I wouldn't consider
 20 that because it has a different style of control, which
 21 is what I printed out on this one.
 22 Q. Okay.
 23 A. That's the only other one I've looked at in
 24 detail.
 25 Q. And what truck is that?

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1 A. That's the Prime Mover.
 2 Q. And you didn't feel the Prime Mover was defective
 3 from your design, from your review of the design?
 4 A. Correct. And I operated it as well.
 5 Q. And the Prime Mover does have a left foot brake?
 6 A. It does.
 7 Q. This next one is -- it appears to be a Crown
 8 Partner Extranet that you received from Hugg and Hall?
 9 A. I think so. Is that what it says?
 10 Q. Yes. It just says, Hugg and Hall Equipment,
 11 Little Rock.
 12 A. Correct.
 13 Q. And it appears to be a printout regarding this
 14 specific truck?
 15 A. Correct.
 16 Q. And how did you obtain that?
 17 A. I just called and asked for the spec sheet on that
 18 serial number and see what all the features were.
 19 Q. Okay. I'll mark that as Exhibit 83.
 20 (Deposition Exhibit 83 was marked.)
 21 Q. I take it you have a relationship with someone at
 22 Hugg and Hall that you can call?
 23 A. I just call them. I know a few of them. That's
 24 the reason I call them.
 25 Q. Can they just give you that on any truck?

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1 A. Well, they have several manufacturers. I don't
 2 know that other truck manufacturers have a sheet like
 3 that.
 4 Q. I'll give you this one back. I don't need to mark
 5 that. And I don't know if these were related at all,
 6 and I'm not going to worry about whether they are.
 7 A. Okay.
 8 Q. But we have a series of notes that were together
 9 in your binder though. And we're going to mark those
 10 collectively, and they may have different dates and not
 11 be related, but we're going to mark them collectively as
 12 Exhibit 84.
 13 A. Okay.
 14 (Deposition Exhibit 84 was marked.)
 15 Q. I won't mark this one either, but here is a letter
 16 enclosing a CD containing Crown documents 10,413 to
 17 18,361, which my guess would be this is the copy of the
 18 accident reports. We won't mark that as well.
 19 As Exhibit 85 I'll mark an email regarding a
 20 description of the accident.
 21 (Deposition Exhibit 85 was marked.)
 22 Q. And then as Exhibit 86 we'll mark a listing of
 23 your publications.
 24 (Deposition Exhibit 86 was marked.)
 25 Q. And on Exhibit 86, are you aware of any other peer

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1 reviewed publications that you have contributing to the
 2 scientific literature other than those listed on 86?
 3 A. No.
 4 Q. Okay. Exhibit 87 is a copy of your engineering
 5 services agreement.
 6 (Deposition Exhibit 87 was marked.)
 7 Q. Which was dated here February 22, 2013?
 8 A. Okay.
 9 Q. And then as collective 88 we'll mark the copy of
 10 all of your invoices in this case.
 11 (Deposition Exhibit 88 was marked.)
 12 Q. And I'll just do a rough calculation without
 13 intending to be specific. From my brief review, it
 14 appears to be approximately \$28,000 in charges from 2013
 15 to February 28, 2014?
 16 A. Okay.
 17 Q. I take it since this last bill is dated 2/28,
 18 there may be additional time preparing for this
 19 deposition?
 20 A. Yes, sir.
 21 Q. Any estimate of the time you've spent in March and
 22 early April?
 23 A. No idea, no, sir. I don't think it was very much
 24 except for the deposition preparation.
 25 Q. And obviously we're compensating you for your time

Page 60

1 today.
 2 A. Okay.
 3 Q. I don't know if we already have or not but --
 4 A. That's not always the arrangement. Whatever the
 5 arrangement is.
 6 Q. Does that sound about right, a little less than
 7 \$30,000?
 8 A. I haven't even looked at those. I'll take your
 9 word for it.
 10 Q. And then we'll mark -- are these copies of these
 11 CDs?
 12 A. Yes. You can have a copy except for one of them.
 13 There's one of them I think -- actually that's the
 14 discovery. There should be a copy of my inspection
 15 video and photos. Actually I only did one video, which
 16 is the inspection video.
 17 Q. I'll just identify, for the record, but I won't
 18 attach this.
 19 A. Okay.
 20 Q. Crown documents 10,413 to Crown 18,361.
 21 A. Right. It matches that list right there.
 22 Q. And we'll mark as 88 your inspection photographs.
 23 (Deposition Exhibit 88 was marked.)
 24 Q. Is this a hard copy of this?
 25 A. It is.

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1 Q. Okay.

2 A. I wasn't sure you were coming. When Mr. Warshauer

3 told me you were coming, I had already made that CD.

4 Q. I appreciate that.

5 A. You can have it. It's the same thing that's on

6 there.

7 Q. So we'll give you these back?

8 A. You can have those. It's up to you. If you want

9 the hard copies you can have them.

10 Q. I appreciate that.

11 A. The CD too, if you want that.

12 Q. We'll mark it as Exhibit 88, and we'll just

13 identify that I took a hard copy with me.

14 A. Okay.

15 Q. And then as Exhibit 89, inspection, you also did a

16 video at the inspection?

17 A. Yes, sir.

18 (Deposition Exhibit 89 was marked.)

19 Q. And this appears to be another inspection video?

20 A. Yeah. One of those I need back because they're my

21 originals. These are duplicates.

22 Q. Is there any one you want back?

23 A. No.

24 Q. Does it matter?

25 A. No.

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1 Q. Okay. And then you have 10/31/13 Hernandez v

2 Crown forklift videos?

3 A. That is a video of I believe Mr. Berry that I got

4 a copy of. It was -- he videoed me operating the truck

5 at the inspection.

6 Q. Okay.

7 A. And that is my original. So I guess we'll have to

8 get a copy of that.

9 Q. No problem. We'll mark it as Exhibit 90, but

10 leave it with you so we can get a copy.

11 A. All right.

12 (Deposition Exhibit 90 was marked.)

13 A. Mr. Warshauer probably has a copy of this he can

14 give you. Unless you want me to make it, I can do that

15 too.

16 Q. Either way. Believe it or not, it is probably

17 easier to get it from you, because I know how things go

18 in my office when --

19 A. That's fine.

20 Q. When we leave here, Mike has many other things.

21 A. All right. I'll do that.

22 Q. That's all the exhibits unless something occurs.

23 And why don't I take the ones we're just not marking and

24 put them back in there.

25 A. All right.

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1 Q. So we only have in front of you what we're going

2 to talk about. We'll add these to our list here.

3 A. You didn't mark this, right?

4 Q. I did not. I'll leave that for you just in case.

5 You can refer to it as we go through your report.

6 A. Okay.

7 Q. Now, in terms of your testimony history, are you

8 aware that on occasions your qualifications and/or

9 opinions have been challenged in legal matters?

10 A. I am.

11 Q. Are you aware of any instances where the challenge

12 was successful, in other words, your testimony has been

13 limited or stricken in its entirety?

14 A. I am aware of one case where I was not allowed to

15 proffer an ancillary warnings opinion to my primary

16 opinion.

17 Q. Do you know the basis for that opinion, was it you

18 were not qualified, or the specific opinion was

19 unreliable?

20 A. Well, my opinion was that the warnings should have

21 been more specific. And the judge ruled that there was

22 already a warning on the machine.

23 Q. Okay.

24 A. But again, that was a -- my preferred method of

25 addressing the problem associated with that case were

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1 designed related as opposed to warnings.

2 Q. What was the type of machine involved there?

3 A. It was a baler, cardboard baler.

4 Q. And you recall the jurisdiction state or --

5 A. Pennsylvania.

6 Q. Okay.

7 A. I'm not sure. It would have been near

8 Philadelphia.

9 Q. Do you recall being stricken and/or limited in a

10 case in Michigan?

11 A. Stricken or limited, what do you mean?

12 Q. In terms of your testimony, where portions of your

13 testimony were not allowed to be presented to the jury?

14 A. Not that I'm aware of.

15 Q. Okay. Any other cases you're aware of besides the

16 Pennsylvania case?

17 A. No.

18 Q. Is the Pennsylvania case on your list that we

19 discussed or was it before that?

20 A. I actually never got deposed in that case. It was

21 related to my report and the disclosure document, I

22 believe.

23 Q. Okay. Do you know -- do you know the name of that

24 case?

25 A. The plaintiff was Mkadji, and I cannot remember

Page 65

1 who the defendants were. It was a baler manufacturer.
 2 Q. I think I just asked this, and I apologize if I
 3 did. Are you aware of any other cases besides the
 4 Mkadji case that you're aware your opinions have been
 5 limited or stricken, or some way modified from what you
 6 intended to offer to the jury?
 7 A. Not that I'm aware of.
 8 Q. Okay. Now, turning to your specific opinions in
 9 this case. What were you retained to do by Mr.
 10 Warshauer's group, his law firm, in your analysis in
 11 this matter?
 12 A. My primary role was to take a look at the machine
 13 controls and the design of the machine in terms of
 14 controls and operational characteristics.
 15 Q. And what was your -- was your task limited to the
 16 operational controls, or look at the machine and tell me
 17 if you believe this machine in any regards is defective,
 18 and/or unusually dangerous, which could have contributed
 19 to this accident?
 20 A. Well, it's normally that broad. But specifically,
 21 I know Mr. Warshauer had some other experts focusing on
 22 other specific aspects of the machine.
 23 Q. Okay. So you felt your task was limited to the
 24 operator controls?
 25 A. Machine design in terms of the way it operates in

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1 general, yes, sir.
 2 Q. Okay. And in reviewing the accident here, did you
 3 have an opportunity to speak with Mr. Hernandez himself?
 4 A. I did.
 5 Q. Was that at the inspection?
 6 A. It was.
 7 Q. Did you record that conversation or communication
 8 in any way?
 9 A. I did not. Actually most of the conversation was
 10 between Mr. Warshauer and Mr. Hernandez. I was just
 11 listening.
 12 Q. Okay. Anything you remember, did he describe the
 13 accident to you?
 14 A. In general, yes, sir.
 15 Q. Did you find it in any way distinct or different
 16 from what you read in his deposition?
 17 A. No.
 18 Q. And as an expert in this case, are you relying
 19 upon the testimony he gave in his deposition to form
 20 your opinions regarding how the accident occurred?
 21 A. Yes, sir.
 22 Q. Have you accepted the entirety of Mr. Hernandez's
 23 testimony regarding his accident, or did you go behind
 24 it to challenge whether this actually occurred?
 25 A. I'm not sure I understand your question.

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1 Q. It was a horrible question. From an engineering
 2 standpoint, did you find any parts of Mr. Hernandez's
 3 testimony implausible or inconsistent with laws of
 4 physics or engineering?
 5 A. I did not.
 6 Q. Did you accept all aspects of his testimony as
 7 precisely true?
 8 A. With regard to how the accident occurred?
 9 Q. Yes.
 10 A. Generally I did, yes.
 11 Q. Okay. From your review of the maintenance records
 12 and the testimony in this case, had this forklift
 13 experienced any mechanical problems during its operation
 14 before this accident, on the day of the accident?
 15 A. On the day of the accident?
 16 Q. Yes.
 17 A. Not that he testified to.
 18 Q. Okay. Have you reviewed in this case any
 19 testimony, summaries of testimony or bullet point
 20 summaries, any materials that would give you an
 21 understanding of what mechanics and other individuals
 22 knowledgeable about this truck said about its operation
 23 before, during and after this accident?
 24 A. I have only read Mr. Hernandez's deposition, no
 25 other documents.

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1 Q. Have you been provided with copies of the accident
 2 investigation materials from Lowe's regarding what they
 3 found about how the accident occurred and why it
 4 occurred?
 5 A. Did you see it in my notebook?
 6 Q. No.
 7 A. Then I have not.
 8 Q. Okay. And that's what I'll ask you. I think I've
 9 identified everything you brought here today. Have you
 10 ever been provided with Lowe's, their assessment and
 11 their investigation, including their analysis of the
 12 root cause of this accident?
 13 A. No. I didn't know that existed.
 14 Q. Is that something you typically get in cases?
 15 A. Sometimes. I'm at the mercy of whatever I'm
 16 provided in a case.
 17 Q. Right. Have you seen any testimony or summaries
 18 of testimony of any mechanics who worked on this truck?
 19 A. No.
 20 Q. Any individuals who investigated this accident?
 21 A. No.
 22 Q. Just before we try to break it down, as you know,
 23 we always do in these cases.
 24 A. Yes.
 25 Q. Give us your general understanding of how this

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1 accident occurred?

2 A. Mr. Hernandez was coming from the main aisle

3 trying to turn out in between two of the stocking aisles

4 he. He attempted to plug brake and slow down. Which

5 happened -- which happened properly the first two times

6 according to his testimony, or two or three times. The

7 third time he -- and that's not uncommon to try to plug

8 brake by going into and out of -- that's a common way to

9 do it. The last time when he tried to do that, he was

10 not able to plug brake, and the steering -- he lost his

11 power steering, which did not allow him -- did not allow

12 him to complete his turn, and he collided with the end

13 cap of one of the aisles, the curb. I believe aisle 334

14 was the aisle. I'm not sure which side it was on.

15 Q. Okay. So just to recap. He's making a right

16 turn?

17 A. Yes, sir. Right being forks trailing as he's

18 turning to the right.

19 Q. Correct.

20 A. Yes.

21 Q. You told us that, from your review of his

22 testimony, he was slowing, attempting to slow by using

23 the plugging function on the truck?

24 A. Correct.

25 Q. And on the first couple of occasions he did that

1 A. Correct.

2 Q. Okay. Have you seen any records from any source,

3 whether it be Lowe's or materials provided from any

4 source, where any individuals inspected this truck to

5 determine if there were any issues regarding the

6 plugging?

7 A. It seems like Lowe's took a look at it afterwards,

8 but I wouldn't swear to that.

9 Q. Okay.

10 A. Those invoices, wherever they are. And your

11 question is did anybody look at it after the accident?

12 Q. Yes, that you know of?

13 A. I don't recall anything. I've give you an answer

14 in a minute.

15 Q. Okay.

16 A. At least according to the records I have. There's

17 no inspection or work order for an inspection after the

18 accident.

19 Q. Okay.

20 A. That I have.

21 Q. Have you seen any materials from any source where

22 any individual, that you know of, inspected the forklift

23 after the accident to determine if they could find any

24 evidence of a plugging failure or a plugging problem?

25 A. I don't recall any materials.

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1 the plugging worked, according to him, in other words,

2 he did experience deceleration from plugging?

3 A. Yes, sir.

4 Q. And then did he feel he needed to plug again, I

5 guess to continue to slow?

6 A. Apparently, yes, sir.

7 Q. So while after plugging the second time, did he

8 give it more traction, in other words, did he reverse

9 plugging and then go back in the direction he was

10 turning?

11 A. Say that again?

12 Q. Sure.

13 A. Did he accelerate in the same direction he was

14 going I think is your question?

15 Q. Yes. After plugging the second time, did he just

16 let it go to neutral or did he accelerate?

17 A. I don't recall that being his testimony that he

18 accelerated.

19 Q. Okay. And so on his third attempt to plug, what

20 allegedly happened, according to Mr. Hernandez?

21 A. Nothing happened. He did not -- he was not able

22 to plug and he lost power steering at the same time, I

23 believe, according to his testimony.

24 Q. So he did not experience any deceleration, at

25 least in his feeling?

1 Q. Okay. Would the same be true if I asked you did

2 anyone after the accident inspect the truck to determine

3 if there were any braking failures or steering problems

4 or failures?

5 A. I seem to recall something to that effect. You

6 can tell me. I don't think I have any of those

7 documents.

8 Q. From what I've identified here, and I believe I've

9 marked everything --

10 A. I don't have any documentation.

11 Q. Okay.

12 A. To that effect.

13 Q. Okay. Just so I'm clear, because I think my

14 question was bad. Are you aware of and have you seen

15 any documentation of an inspection of this forklift,

16 after the accident, to determine whether or not there

17 were any documented steering, braking or plugging

18 problems?

19 A. No, sir.

20 Q. After he is making the right turn, attempts to

21 plug twice, and gains deceleration or feels

22 deceleration, and then on the third occasion does not

23 experience deceleration, does he take any further

24 actions after that to avoid an accident?

25 A. He lifts his foot from the brake pedal.

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1 Q. Okay. Do you know how he did that, in other
2 words, did he lift his left heel, did he lift his left
3 forefoot, did he lift his entire foot?
4 A. I believe his testimony was that he lifted his
5 foot off the brake pedal, whatever degree of that it is.
6 Q. From reading the operator manual, did you
7 determine you can operate this left foot brake by moving
8 just a portion of your foot off it?
9 A. Depending on where your foot is positioned you
10 can, yes, sir. I know that's a suggestion in the
11 manual, I believe.
12 Q. In the manual would you agree with me that it
13 recommends that an operator use their left heel and keep
14 their forefoot on the floor?
15 A. Something to that effect, yes, sir.
16 Q. Okay. And when he lifted his left foot, heel or
17 forefoot off the brake did the brake work?
18 A. Apparently, yes, sir. It rapidly decelerated.
19 Q. Is that what it's designed to do?
20 A. It is.
21 Q. Do you have an opinion whether or not the design
22 of the braking system of the Crown RR 5200, not the
23 location of the pedal, but whether the braking system
24 itself was in any way defective?
25 A. I don't have an opinion it's -- I have -- it's my

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1 opinion it's not defective. It's an emergency brake, it
2 did what it was supposed to do.
3 Q. Okay. Have you in any way attempted to calculate
4 the braking force or the acceleration or deceleration
5 associated with applying the left foot brake on a Crown
6 5200 series truck?
7 A. No. But I have calculated percentage difference
8 distances and stopping distances, percentage difference
9 in stopping distance versus plugging.
10 Q. Okay. Just to be clear. Have you ever tested a
11 Crown RR 5200 to determine what is the G-force or the
12 acceleration or deceleration of force applied to an
13 individual when he or she operates the left foot brake?
14 A. No, personally I have not. I believe that's been
15 done by others in reference to Mr. Berry's report.
16 Q. Okay. And when Mr. Hernandez applied the brake,
17 what did he then allege happened to his posture?
18 A. His leg was forced outside of the envelope of the
19 machine, and got between the curb of the end of the
20 aisle and the skirt of the front of the truck.
21 Q. And do you accept that testimony?
22 A. I do.
23 Q. Have you done any independent analysis of the
24 truck of the forces applied to Mr. Hernandez to support
25 that opinion?

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1 A. I operated the truck.
2 Q. Okay.
3 A. My experience was that it caused me to -- unless I
4 would be ready for it, I would lose my balance, when I
5 was braking from about half speed to use the emergency
6 brake to stop.
7 Q. How long did you operate the truck?
8 A. At the inspection probably 10 to 15 minutes. I
9 don't think you were there.
10 Q. No, I was not there.
11 A. 10 or 15 minutes.
12 Q. Did you turn the truck?
13 A. I did.
14 Q. Did you brake the truck?
15 A. I did.
16 Q. Several times?
17 A. Not breaking it, but braking it actually --
18 Q. Yes, not destroying it. Did you apply the brake?
19 A. I did.
20 Q. Did you also plug the truck?
21 A. I did.
22 Q. And at any time during your 10 or 15 minute
23 operation of the stand-up rider truck, did you lose your
24 balance?
25 A. I did.

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1 Q. Did you fall out of the truck?
2 A. I didn't fall out of the truck because I was
3 expecting it.
4 Q. Okay. Did your feet come out of the truck?
5 A. I don't think so, because I put my foot down to
6 keep myself from coming out of the truck.
7 Q. You certainly weren't hurt while you were
8 operating it, were you?
9 A. I was not.
10 Q. Okay. At any time during your operation, did you
11 measure the forces on you in any way whatsoever?
12 A. No, I did not.
13 Q. In other words, you know you can, you could have
14 put an accelerometer on you, or done something to
15 measure the forces as engineers do?
16 A. An accelerometer.
17 Q. And you didn't do that?
18 A. I did not.
19 Q. Okay. Now, I want to determine -- and I think you
20 said in your report that Mr. Hernandez lost his balance?
21 A. Correct.
22 Q. And certainly you've told us that's what his
23 testimony was?
24 A. Yes, sir.
25 Q. Besides his testimony, I want to know every other

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1 thing you rely upon to support the opinion stated in
 2 your report that Mr. Hernandez lost his balance?
 3 A. We have my operation experience with it obviously.
 4 I could probably get close on acceleration or
 5 deceleration rates based on my video and the stopping
 6 distance. And you're talking about what I relied on?
 7 Q. Yes.
 8 A. Primarily those things.
 9 Q. Anything else you can think of?
 10 A. As far as losing --
 11 Q. That part of your opinion, not everything?
 12 A. Well, "Kinesiology" talks about human standing and
 13 balance. It's all about -- it comes down to statics and
 14 dynamics in terms of the center of gravity. And so my
 15 engineering training related to that as well.
 16 Q. And I think you told us that you felt you can lose
 17 your balance because unless you expect the deceleration
 18 as an unexpected event, you're more likely to lose your
 19 balance?
 20 A. Say that again?
 21 Q. I'll just ask it without the first part.
 22 A. Thank you.
 23 Q. I think I read in your report that operators are
 24 more prone to lose balance when they engage in an
 25 activity that's unexpected to them?

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1 A. Correct.
 2 Q. Okay. So in other words, if there's significant
 3 deceleration that they don't expect, they're more prone
 4 to lose their balance, correct?
 5 A. Correct.
 6 Q. If they expect a deceleration, they're ready for
 7 it and they can balance themselves more appropriately?
 8 A. Yes, sir.
 9 Q. Now, in this case Mr. Hernandez applied the brake,
 10 correct?
 11 A. Yes.
 12 Q. He expected deceleration?
 13 A. I'm not sure he expected the kind of deceleration
 14 he experienced.
 15 Q. And --
 16 A. We don't know from Mr. Hernandez's prior operation
 17 whether he ever had an experience like this before.
 18 Q. You would agree with me that he testified he
 19 applied the brake on many occasions before this
 20 incident?
 21 A. Is that in his testimony?
 22 Q. Yes.
 23 A. Okay. Did he describe exactly how?
 24 Q. I don't think he did. I don't want put words -- I
 25 don't want you to just accept my --

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1 A. I seem -- I seem to recall that. But I don't
 2 recall there being any specific questioning or testimony
 3 that he -- he had an experience similar to this before.
 4 Q. Do you know, was Mr. Hernandez involved in any way
 5 that you know of, in training operators how to
 6 appropriately operate Crown stand-up riders?
 7 A. He was.
 8 Q. And do you recall he trained individuals how to
 9 use both the plugging function?
 10 A. Yes, sir.
 11 Q. And also how to use the foot brake?
 12 A. Yes.
 13 Q. And he had done that on many, many occasions
 14 before this accident?
 15 A. Correct.
 16 Q. And when he lifted his left -- portions of his
 17 left foot, he told us he expected deceleration?
 18 A. Sure.
 19 Q. Was there anything about this situation that you
 20 feel was distinct from deceleration in other situations,
 21 in other words, was there something about this
 22 particular event that increased the deceleration force,
 23 other than what he had experienced in the past?
 24 A. No, I don't think the -- I think the deceleration
 25 forces are going to be the same. It's the panic

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1 reaction that changes his response to how he deals with
 2 it.
 3 Q. I take it you're accepting his testimony that he
 4 had a panic type reaction?
 5 A. Well, based on the accident, he had to have had a
 6 panic type reaction.
 7 Q. Okay.
 8 A. It's reasonable to infer that as you're
 9 approaching an aisle that you know you're going to hit,
 10 that your response would be different than if you were
 11 just braking the truck.
 12 Q. You make a statement in your report that operators
 13 who are dealing with unexpected events can lose their
 14 balance?
 15 A. Yes.
 16 Q. Is there any -- and you told us some of the basis,
 17 that you've operated the truck, you have Mr. Hernandez's
 18 testimony?
 19 A. Right.
 20 Q. Are you relying upon any scientific or engineering
 21 literature that you know of that would support an
 22 opinion here that an operator of a stand-up rider
 23 forklift in this configuration would lose balance upon
 24 deceleration?
 25 A. Say that again? Am I relying on what?

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1 Q. Is there any scientific or engineering literature
2 that you're aware of that indicates or provides support
3 for your opinion that an operator of a stand-up rider
4 forklift, who applies the left foot brake, experiences
5 enough deceleration force to lose his or her balance and
6 come out of the truck?
7 A. Are you limiting it only to a specific study on a
8 stand-up rider or general engineering principles?
9 Q. I'll start with the first question. Then I'll ask
10 you about general engineering principles. How about are
11 you aware of any study that has tested that concept on a
12 stand-up rider forklift, and shown that the forces are
13 sufficient to cause an operator to be partially ejected
14 from a compartment?
15 A. I'm aware of one that is referenced in Mr. Berry's
16 report.
17 Q. Do you know the name of it?
18 A. No. But I think I probably could find it if you'd
19 like me to.
20 Q. Is it referenced in Mr. Berry's report?
21 A. Yes, sir.
22 Q. Is that something you found just from reading his
23 report?
24 A. Correct.
25 Q. Have you ever read the study?

1 A. Right. And I've done many center of gravity
2 studies on other equipment.
3 Q. Okay. What was Mr. Hernandez's center of gravity?
4 A. Where was it?
5 Q. Yeah.
6 A. Generally it's about 55 percent of the height plus
7 about a centimeter. That's the general answer from
8 metric data. So it's about one and a half centimeters.
9 Q. So above his waist?
10 A. Yes, sir.
11 Q. Did any part of his hip or waist come out of the
12 compartment that you know of?
13 A. Well, nobody saw the accident. He doesn't recall.
14 I would say that a portion of his hip almost would have
15 had to have gotten outside the envelope for his foot to
16 get in the position it was to be crushed.
17 Q. Okay. Do you recall his testimony that only his
18 leg came out?
19 A. Right. But the leg is attached to his hip. And
20 depending on how he's leaning. But yeah, it may or may
21 not have. It would have been close if it did not.
22 Q. Okay. As you said, there are no witnesses to the
23 accident?
24 A. Right.
25 Q. And we'll talk about -- I want to get the general

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1 A. No. I think it specifically talks about issues.
2 There's a specific study done on stand-up riders that
3 shows that operators can -- it may be the specific words
4 you asked me.
5 Q. Other than what is referenced in Mr. Berry's
6 report, are you aware of any specific study on stand-up
7 riders which quantifies the deceleration force, and says
8 that force is sufficient to cause a complete or partial
9 ejection from the truck?
10 A. You wouldn't have a study like that. I mean,
11 there are too many unknowns you're putting in there
12 generally.
13 Q. Okay.
14 A. You can lose your balance on anything, given the
15 right circumstances, depending on how fast you're going.
16 Any force where you're stopping, if you don't compensate
17 for it you can lose your balance.
18 Q. Okay.
19 A. Especially if you're standing on one leg and your
20 center of gravity -- it comes down to center of gravity.
21 When it gets outside the footprint of however you're
22 supporting the object, then you become unstable. That's
23 basics physics and engineering.
24 Q. And that's some of the general engineering
25 principles you were referencing earlier?

1 engineering literature first or in just a minute.
2 A. Okay.
3 Q. But even more generally regarding stand-up rider
4 forklifts.
5 A. Okay.
6 Q. And I agree with you that there's some tests you
7 wouldn't do.
8 A. Right.
9 Q. But as you sit here today, are you aware of
10 studies that have measured deceleration forces on
11 stand-up rider forklifts, and then come to quantify
12 those forces, other than those referenced in Mr. Berry's
13 expert report?
14 A. I've actually participated in those, not
15 specifically -- not specifically on a stand-up rider,
16 but on a center-riding pallet truck, which it would be
17 the same.
18 Q. Okay.
19 A. Probably 30 or 40 test runs.
20 Q. And what did you find there?
21 A. The decelerations?
22 Q. Yeah.
23 A. I would have to go back and look at my data. The
24 truck I was driving was outfitted with an accelerometer
25 by the accident reconstructionist. But I have the data.

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1 I can get that for you.
 2 Q. And if you -- when you operated that center
 3 console truck, did you have any problems keeping your
 4 balance on that truck?
 5 A. No, because I had a handle to hold onto.
 6 Q. Okay.
 7 A. It was in front of me.
 8 Q. Okay.
 9 A. And I had a backrest behind me.
 10 Q. Okay. Have you seen any studies or scientific or
 11 engineering literature quantifying the deceleration
 12 forces on a stand-up rider and the control for a
 13 forklift such as the one Mr. Hernandez was operating
 14 here or similar to it, a Raymond, a Crown, Toyota?
 15 A. I'm not aware of any. I haven't researched that.
 16 Q. Okay. And you've done no studies on stand-up
 17 riders yourself regarding those sources?
 18 A. Only my operation experience.
 19 Q. And in your own experience, you didn't record any
 20 data, did you?
 21 A. I didn't.
 22 Q. Okay. During your inspection on April 23rd, and
 23 we marked these photographs, you indicated you performed
 24 operational tests during this inspection?
 25 A. I did.

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1 Q. And I think you've told us that you operated the
 2 truck for 10 to 15 minutes, stopped the truck, turned
 3 the truck, plugged the truck?
 4 A. Yes, sir.
 5 Q. And I assume those were part of the operational
 6 testing you were performing?
 7 A. Yes, sir.
 8 Q. Did you perform any other operational tests?
 9 A. Well, functional tests of the mast and the reach
 10 mechanism.
 11 Q. Okay.
 12 A. Elevated the forks as high as I could get them
 13 inside the facility.
 14 Q. Anything else?
 15 A. No.
 16 Q. From any of these operational tests or during any
 17 of these operational tests, did you record any data, for
 18 instance, did you calculate the precision stopping
 19 distance, did you measure it, did you measure the lift
 20 height, things of that nature?
 21 A. I did not measure the lift height, because I
 22 couldn't get it all the way up. Its published data. It
 23 was immaterial in this case.
 24 Q. Okay.
 25 A. I was generally interested in the configuration

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1 and how it functioned. I did do stopping distance tests
 2 and recorded those by video. And then I believe -- I
 3 think my notes are --
 4 Q. We have a series of notes.
 5 A. Yeah. Do you want me to just go through these and
 6 tell you what they are?
 7 Q. Okay.
 8 A. The first one would be a summary of my first
 9 conversation with Mr. Warshauer when he called me.
 10 Q. Okay.
 11 A. Or his office called me. The second one is notes
 12 off of the video of the run hours and operational hours,
 13 the parameters that we found on the truck, and some of
 14 the acceleration and speed characteristics.
 15 Q. Okay.
 16 A. The third one is a note I made on some more of the
 17 diagnostics on the truck set for aggressive plugging.
 18 It's 9 out of 10. I'm not sure it will go to 10. I
 19 believe it's set for very aggressive plugging. The next
 20 two are just notes of the layout of where the accident
 21 happened, those two.
 22 Q. Okay.
 23 A. And then I did a very quick and dirty calculation
 24 on the -- the last page it says, RR 5200 series at the
 25 top.

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1 Q. Okay.
 2 A. It's just my notes of the data on the machine, the
 3 characteristics of it, and the model number, et cetera.
 4 And then I wrote down again some of the run hours and
 5 things like that. And then at the very bottom, after I
 6 got back I made a note that said, brake tests from
 7 video, forks trailing. And I had a deadman braking
 8 average distance, and I had a plug braking average
 9 distance. And I just calculated the percent difference
 10 in the stopping distance.
 11 Q. And what were those distances?
 12 A. The average approximate deadman braking distance
 13 was about 82 inches.
 14 Q. Okay.
 15 A. Plug braking was between 96 and 108, which is
 16 about a 102 average.
 17 Q. Okay.
 18 A. And so it was a 24 percent difference in braking
 19 distance from plug braking to the deadman braking.
 20 Q. Would you agree with me that both of those figures
 21 are within standards allowed by ANSI B56.1?
 22 A. I'd have to look at -- I know it's in Crown's
 23 manual. It's one of their parameters. I did compare it
 24 to the standard. Presumably it would be because it's an
 25 ANSI compliant truck.

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1 Q. And would you agree with me that those stopping
2 distances are within Crown's specifications for what a
3 range of braking they can consider acceptable?
4 A. Yes.
5 Q. Okay. When you inspected this truck and reviewed
6 the truck, did you find any aspect of the truck
7 violative of any ANSI or ASME standard?
8 A. I didn't test it to all the parameters in the
9 standards, but the areas that I was interested in, no, I
10 did not.
11 Q. From an operational standpoint, from your review,
12 did you find any of the features of the Crown truck
13 violative of any ANSI or ASME promulgated standard?
14 A. With regard to the features I tested, no.
15 Q. Okay. Why don't we take five minutes.
16 A. Okay.
17 Q. We've been going a little over an hour.
18 A. Okay.
19 MR. CULLEN: Is that all right, Mike?
20 MR. WARSHAUER: Okay.
21 (A recess was had.)
22 BY MR. CULLEN (CONT.):
23 Q. Now, during your inspection you noted that the
24 parameters were set to aggressive plugging, I think you
25 said?

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1 A. Yes, sir.
2 Q. And how did you determine that?
3 A. I looked through the -- there's a code. You can
4 go into the settings on the machine and look at the
5 setup for the machine.
6 Q. Do you remember the number?
7 A. 9.
8 Q. 9?
9 A. Yes, sir.
10 Q. And is 9 the highest?
11 A. I think so. But I had 9 out of 10 on my notes, so
12 10 may be the highest. I'd have to go back and look at
13 the manual to be sure.
14 Q. Okay. And so your quantification of the braking
15 and the plugging distance, how did you do that, did you
16 just literally start from a certain line and then
17 measure where you ended up?
18 A. Yes, sir. I had a tape laid out on the floor, and
19 I started at an expansion joint every time.
20 Q. Okay. And you were the operator?
21 A. I was.
22 Q. Besides the plugging and the stopping distances,
23 did you record any other data regarding the operation of
24 the truck during your inspection?
25 A. I did not.

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1 Q. Okay. Did you open up the compartment?
2 A. Yes, sir.
3 Q. Did you notice anything inside the compartment
4 regarding the motors or switches that was relevant to
5 your analysis?
6 A. I was focused initially on that area. There
7 wasn't anything that -- I noticed a little bit of
8 burning -- well, not burning, melting of the contact
9 pads on the emergency disconnect contactor. But that
10 doesn't apply to this accident.
11 Q. Would you agree with me that that had no relevance
12 to this accident?
13 A. I would.
14 Q. Okay. Did you find anything from your inspection
15 of the contactors, the switches, the things you were
16 looking at, that you believe contributed in any way to
17 this accident?
18 A. No.
19 Q. Okay. Did you find anything from your internal
20 inspection of the compartment that was, in your opinion,
21 defective or was it an unreasonably dangerous design?
22 A. Irrespective of the lack of the door, right?
23 Q. Yes.
24 A. No.
25 Q. Okay.

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1 A. Well, let me go back. I've opined that the
2 necessity of removing one's outside foot from the brake
3 is a defect.
4 Q. I'm talking about from your inspection of the
5 interworkings of the truck, the motors, the switches,
6 the contactors. Did you see anything about the design
7 of those materials which you felt was unreasonably
8 dangerous or defective?
9 A. About the design, no, I did not.
10 Q. Okay. And just to shape this up to prepare,
11 because I understand you have opinions on the brake pad
12 and where it is, the controls?
13 A. The brake pedal.
14 Q. The brake pedal. And we'll get to those and
15 you've outlined those in your report.
16 A. Okay.
17 Q. Have you developed any opinions regarding the
18 design of our -- of Crown's traction system contactors
19 switch system regarding how power is maintained and
20 provided and distributed to the truck in this case?
21 A. I have not.
22 Q. Have you developed and prepared to offer any
23 opinions regarding the design of the contactors or the
24 switches in this case?
25 A. No, I have no opinions of those.

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1 Q. Okay. I noted that in your report you referenced
2 the National Safety Council?
3 A. Yes, sir.
4 Q. And they have a manual, I believe, regarding
5 design and other issues?
6 A. They have several manuals.
7 Q. Okay.
8 A. Yes, sir.
9 Q. What is the current version of it, current
10 edition?
11 A. I think they're up to -- I only have the 12th
12 edition, I believe, or 14th edition. I'm not sure which
13 one they're up to.
14 Q. Would you agree with me the National Safety
15 Council current and even former editions on safety and
16 design and engineering regarding specific products is a
17 reliable reference for engineers in the field?
18 A. I would say in the areas that I've looked at, yes,
19 sir.
20 Q. Okay. You noted in your report several specific
21 standards regarding the parking brake, travel controls,
22 I believe those were the two specific ones you
23 identified.
24 A. Let me get there.
25 Q. 716 and 719, and then components of each one.

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1 A. What page are you on?
2 Q. That was on page 13.
3 A. Okay. Thank you. Yes, I did.
4 Q. And those are the only specific portions of the
5 standards that you cite in your report?
6 A. Yes, sir.
7 Q. And have you cited or reviewed any subsequent
8 revisions to the 2000 standard?
9 A. Not for this case. I have in other cases.
10 Q. Does the Crown RR 5200, that you evaluated in this
11 case, comply with these portions of the ASME B56.1 2000
12 standards?
13 A. It does.
14 Q. Okay. Now, in looking at your report beginning on
15 page 13, when you detail your opinions, your first
16 opinion regards the location of the brake pedal, as you
17 call it, the emergency brake pedal?
18 A. Yes, sir.
19 Q. Okay. And you feel that in this specific case it
20 should not be on the left side of the compartment?
21 A. I do.
22 Q. You've agreed with me in the past that there are
23 several trucks manufactured with left foot brake
24 designs?
25 A. I would.

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1 Q. Okay. Do you have an opinion that all such trucks
2 with a left foot brake design are defective, or is it
3 only related to this Crown truck?
4 A. You asked me that before.
5 Q. Okay.
6 A. I said it depends on what their control
7 configuration is.
8 Q. Okay. And what about the control configuration in
9 this case allows you to come to the conclusion that the
10 left foot brake pedal here renders this design
11 defective?
12 A. Because in the forks trailing direction of travel,
13 and the fact that you have an open -- we call it an open
14 back, it's actually the open front in this case.
15 Q. Okay.
16 A. You have no means to resist motion if you raise
17 your foot up off that brake pedal, other than trying to
18 lean the other way to compensate for it. In other
19 words, your hands are occupied with other controls
20 related to the truck, which don't provide resistance to
21 the -- or enough resistance to forward motion, if you
22 try to stop by applying the emergency brake.
23 Q. What control device is your left hand operating
24 during typical operation?
25 A. The steering tiller.

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1 Q. And it has a knob you can hold onto?
2 A. Yes, sir.
3 Q. Do you believe that provides stability?
4 A. It could provide some, but it's not a fixed
5 object.
6 Q. Okay. It's on a limited plane, correct?
7 A. Correct.
8 Q. Have you seen a steering tiller in any other
9 machine or stand-up rider that you've evaluated, which
10 you believe provides more stability than the Crown
11 steering tiller?
12 A. I think that they're generally the same. So no, I
13 haven't looked at it for that specific aspect. It's a
14 movable object and it's about a 10 inch diameter.
15 Q. Okay. The multiple function control?
16 A. Yes, sir.
17 Q. And what hand is that used with?
18 A. Right.
19 Q. And that governs what functions?
20 A. Everything else, raise, lower, forks extend, side
21 shift, if it has it, reach.
22 Q. And how does -- what are the planes in which that
23 device moves?
24 A. It's moving two planes.
25 Q. Okay.

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1 A. Generally in a circular direction. It's not
 2 constrained to forward, backward, side-to-side.
 3 Q. Up and down basically and then forward and
 4 reverse? And I agree it can move --
 5 A. Yes.
 6 Q. But it's meant to be operated up, down, back and
 7 forth?
 8 A. Well, not totally up and down, but in those
 9 planes, yes.
 10 Q. Okay. Does any part of that control device allow
 11 the operator to move towards the exit? In other words,
 12 holding onto that, does it give towards the rear entry,
 13 or does it stay in a stable position that horizontal
 14 plane?
 15 A. It depends on where his hand would be when they
 16 started to move.
 17 Q. Okay.
 18 A. And his thumb is on the outside. It depends on
 19 where his hand would be when he started to move.
 20 Q. Okay.
 21 A. And his thumb is on the outside.
 22 Q. Right.
 23 A. So yes, it does.
 24 Q. Do you believe that the multi-function control
 25 actually can be pulled towards the opening?

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1 A. No, I do not.
 2 Q. Okay.
 3 A. It can -- depending on where it is, it can move --
 4 it's based on its actual movement.
 5 Q. In other words, if it's all the way up, it can
 6 move and it would be a little closer to the other one?
 7 A. Correct.
 8 Q. Okay. But say it's in a neutral position. Can
 9 that multi-function control be pulled towards the
 10 opening?
 11 A. Physically?
 12 Q. Yes.
 13 A. No.
 14 Q. Okay. Do you believe the multi-function control
 15 provides a point of contact that provides stability to
 16 an operator?
 17 A. I believe it provides a point of contact, not
 18 necessarily stability.
 19 Q. What position is the operator of a Crown 5200
 20 operator in during normal operation?
 21 A. Are you talking about orientation with respect to
 22 the operation of the truck?
 23 Q. Yes.
 24 A. He's sideways.
 25 Q. Okay.

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1 A. Sideways with respect to the direction of travel.
 2 Q. Would you agree with me that there are many
 3 designs of stand-up rider forklifts where the operator
 4 is in a fore aft position?
 5 A. I would.
 6 Q. And when there is deceleration, there's no
 7 backrest, in other words, the person can go towards the
 8 open compartment, correct, the open end of the
 9 compartment, when there's deceleration forks trailing?
 10 A. From a rearward prospective you're talking about?
 11 Q. Yeah.
 12 A. Correct, sideways on the --
 13 Q. Would you agree with me that the side stance
 14 position provides a more stable environment than a fore
 15 aft position, in terms of the design of the truck?
 16 A. Not necessarily.
 17 Q. Have you studied that, have you compared the
 18 stability of an operator in a sideways position, side
 19 stance position, versus an operator in a fore aft
 20 position?
 21 A. Well, I mean, there are so many variables there.
 22 If you have a five point contact, you have a five point
 23 contact, irrespective of whether it's forward, reverse
 24 or sideways.
 25 Q. Okay.

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1 A. And depending on how you stand. You can be just
 2 as stable in either orientation.
 3 Q. Would you agree with me that a fore aft position
 4 when you're traveling forks trailing, you would only
 5 have a four point -- four points of contact, not five?
 6 A. In what regard? I wouldn't agree with that. It
 7 depends on how you stand.
 8 Q. Okay.
 9 A. If you're leaning up against the side of either
 10 truck, you've got a five point stance.
 11 Q. Now, in terms of your opinion, you feel that the
 12 brake pedal should be close to and operated by the right
 13 foot?
 14 A. Right.
 15 Q. Okay.
 16 A. On this particular -- the point being it needs to
 17 be on the side where there's a barrier as opposed to an
 18 open.
 19 Q. Have you designed a stand-up rider forklift in a
 20 preliminary manner, done drawings, which includes
 21 exactly where you would put the brake pedal?
 22 A. No, I don't need to. It's already been done. In
 23 fact, you guys have a pedal there already.
 24 Q. Okay.
 25 A. You just switched the switches.

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1 Q. And again, my question is, as an engineer, is it
 2 your opinion that Crown should just merely switch the
 3 two pads, in other words, that's exactly where it should
 4 be, where our right foot sensor pad is exactly where the
 5 brake should be, and the left pedal should now be the
 6 sensor pad, or have you come up with your own design
 7 putting the right foot pedal in this particular location
 8 of the truck?
 9 A. I have not come up with my own design, no. I
 10 think where it's located generally is fine. If there
 11 are some other issues which I haven't studied, I can't
 12 imagine there being because Crown has obviously
 13 researched where that pedal should be for other
 14 functions.
 15 Q. Okay.
 16 A. So I would be of the opinion that its location is
 17 fine.
 18 Q. Have you done any of your own drawings of an
 19 operator compartment which show exactly where you feel
 20 the pedal should be?
 21 A. No. I've provided several examples of where it's
 22 already been done.
 23 Q. Have you prototyped it in any way?
 24 A. No. It's not necessary.
 25 Q. Have you done any of your own tests to determine

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1 any issues that may arise with the right foot pedal with
 2 this orientation of operator?
 3 A. I operated another machine that had a right pedal
 4 with that orientation of an operator.
 5 Q. Besides your personal operation, have you done any
 6 tests with operators measuring forces or measuring any
 7 other data?
 8 A. The forces would be the same.
 9 Q. Okay.
 10 A. It doesn't matter where the pedal is.
 11 Q. Have you done any such testing though?
 12 A. No.
 13 Q. Have you done any testing on an operator -- on a
 14 truck with a right foot pedal configuration, as you
 15 recommend, to compare the stability of that
 16 configuration of pedal versus the stability in a
 17 stand-up rider forklift designed as the Crown 5200
 18 series is?
 19 A. Other than my own testing?
 20 Q. Yeah.
 21 A. Have I done any studies or tests?
 22 Q. Tests.
 23 A. No. My own would be the best gauge of that, based
 24 on the different operating -- the different experience
 25 characteristics on those two designs.

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1 Q. Have you done any testing whatsoever where you
 2 recorded data regarding an operator's stability in each
 3 of those pedal configurations, so another engineer or
 4 another scientist could compare the results of those
 5 tests?
 6 A. Other than my videos, no. Another engineer could
 7 compare those.
 8 Q. So you've done -- so you've videoed yourself -- I
 9 shouldn't say that. Someone else videoed you operating
 10 a Crown stand-up rider forklift?
 11 A. Yes.
 12 Q. And you also have videos of you operating a
 13 Raymond truck?
 14 A. Prime Mover.
 15 Q. Prime Mover. And did the Prime Mover truck have
 16 the right actuated brake?
 17 A. It did not.
 18 Q. In fact, the Prime Mover --
 19 A. I'm sorry. You asked me that question. It did
 20 not. It had a left actuated brake.
 21 Q. So the Prime Mover truck has a left foot actuated
 22 brake?
 23 A. With a different style of control, which has a
 24 post that is rigid that you can hold onto.
 25 Q. So would your opinion be if Crown merely had a

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1 different control configuration with a rigid post, we
 2 wouldn't need to move the brake pedal from the left to
 3 the right?
 4 A. That's an alternative. I think the right actuated
 5 pedal is better.
 6 Q. Even in the Prime Mover you'd rather have the
 7 right actuated pedal?
 8 A. Well, there's a -- yeah, I think I would.
 9 Q. Okay.
 10 A. But I wouldn't consider theirs defective because
 11 they have another means to provide stability when you
 12 raise your foot up.
 13 Q. Okay. Do you think there's any safety concerns
 14 with having your left foot not be tasked with the
 15 function of keeping it down on a brake pedal, any safety
 16 concerns you considered or analyzed in coming to your
 17 opinion?
 18 A. Actually I think the fact that it's on the left
 19 side when you step into the machine makes it a lot more
 20 likely that you could accidentally actuate the machine
 21 before you're ready, because you're engaging it as you
 22 step into the machine, versus if it's on the right side
 23 you could put a foot down without doing that.
 24 Q. Okay.
 25 A. So I have analyzed that.

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1 Q. Okay. Do you find any safety issues, in your
2 opinion, which give you concern moving the left foot
3 brake pedal to the right side of the compartment?
4 A. To the right side of the compartment. I can't
5 think of any. Let me put it this way. I can't think of
6 any that would outweigh the benefits of putting it on
7 the right side.
8 Q. Okay. You state in your report that, It is
9 foreseeable to Crown that when the brake is applied at
10 typical travel speeds, the deceleration would have a
11 tendency to move the operator toward the opening?
12 A. Absolutely.
13 Q. Okay. You've told us you haven't done your own
14 testing on that, in other words, you haven't put
15 accelerometers on operators to determine what the
16 deceleration is and what happens to that; is that
17 correct?
18 A. That's correct. But it's basic physics.
19 Q. That's what I wanted to ask you. What are you
20 relying upon? You're relying on basic physics?
21 A. First law of motion.
22 Q. Okay. Anything else, any specific articles,
23 studies or tests on this type of machine which you rely
24 upon for that statement?
25 A. Well, my education and training as an engineer.

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1 It's intuitively obvious that when you have a person
2 standing on one leg, who is not prepared to move, then
3 they're going to move in the direction that they're
4 moving when that object tries to stop.
5 Q. In regard to the left foot brake pedal versus the
6 right foot brake pedal, have you evaluated whether if
7 Crown just made that change, if that's all we did.
8 A. Okay.
9 Q. Would you believe that this truck would then be
10 reasonable and not defective?
11 A. Irrespective of the door?
12 Q. Yes, irrespective of the door.
13 A. I would not opine that that is a defect.
14 Q. You would not opine that the operator controls are
15 defective, irrespective of the door?
16 A. Right.
17 Q. If we just moved it to the right side?
18 A. Correct.
19 Q. Do you have an opinion regarding whether or not
20 that change would have prevented this accident from
21 occurring?
22 A. My opinion, with a reasonable degree of
23 engineering certainty, is that it would, it would have.
24 Q. And I want to know everything that's based on?
25 A. Well, first of all, he's raising a foot that is

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1 inboard, which would cause him to lean in a direction
2 that would counteract the deceleration, for one.
3 Q. Okay.
4 A. And the fact that his leg went out is either
5 involuntary or in response to trying to brace himself,
6 which he would not need to do if it was on the right
7 side. Do you want to get into the steering enabling
8 function?
9 Q. We'll get into that next.
10 A. Okay. No. I think absolutely it would have
11 prevented the accident. More likely than not, it would
12 have prevented this accident.
13 Q. Would you agree with me that it is plausible that
14 he could have, for whatever reason, voluntarily stuck
15 his foot outside of the compartment, whether it was a
16 panic reaction or an attempt to push off from the object
17 he was hitting, that is a plausible potential
18 alternative?
19 A. I would not agree with that in this case.
20 Q. Okay.
21 A. Because I think if you're going to stick your foot
22 out, it's going to be above the skirt, because you're
23 going to try to stop yourself up higher than down low.
24 Q. Okay.
25 A. In fact, his testimony was that he didn't even

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1 know he crushed it until he tried to move it. And he
2 was stuck between the curb and the skirt of the machine.
3 Q. And even at the front edge of the truck?
4 A. Say again?
5 Q. Do you know where his foot ended up in relation to
6 the truck, have you done that analysis?
7 A. In relation to the truck?
8 Q. Yes.
9 A. Generally the front edge, the front.
10 Q. Okay.
11 A. And near where the radius on the curb started down
12 the aisle.
13 Q. Okay. Were you asked to reconstruct this
14 accident?
15 A. I was not.
16 Q. Okay.
17 A. But you only got a 12 inch curb. I think it's
18 implausible that you would actually put your foot down
19 to try to stop against that curb if you're trying to
20 stop the machine. I think it's 12 inches. It's
21 somewhere around there.
22 Q. You measured this?
23 A. I can look to tell you exactly.
24 Q. Okay.
25 A. Actually the curb height is only 6 inches. So

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1 it's a very short curb.
 2 Q. Okay.
 3 A. It makes it even more impossible.
 4 Q. Now, in your report you list Raymond, Toyota and
 5 Heister as having designs of compartments with right
 6 foot brakes?
 7 A. Yes, sir.
 8 Q. Would you agree with me that Raymond, Toyota and
 9 Heister also make stand-up rider forklifts with left
 10 foot actuated brakes?
 11 A. I think they do.
 12 Q. Have you evaluated any of those trucks to
 13 determine whether you believe any Raymond, Toyota and
 14 Heister left foot pedal manufactured trucks are
 15 defective?
 16 A. I have not, because I haven't looked at the
 17 control configurations.
 18 Q. Okay.
 19 A. Or the operator containment design on those
 20 particular trucks.
 21 Q. The exemplar truck that you have in figure 10 in
 22 your report, would you agree with me that it only has
 23 one pedal, in other words, there's no --
 24 A. I would. Well, if you look at yours, it looks
 25 like it only has one pedal too because it's under the

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1 pad.
 2 Q. Is there also a ridge in the Crown?
 3 A. Pardon me?
 4 Q. Is there a ridge between the -- where the feet are
 5 placed in the Crown 5200 series truck?
 6 A. A ridge?
 7 Q. Yes. So operators can determine --
 8 A. I don't recall it being a distinct ridge, but
 9 there may be. I don't think so. If you look on page 7.
 10 Q. Behind the brake button or brake pedal, do you see
 11 that ridge area?
 12 A. You're talking about the -- you're talking about
 13 the piece of steel?
 14 Q. Yes.
 15 A. Okay. I wouldn't call that a ridge. I'd call
 16 that part of the pedal configuration.
 17 Q. Do you know why that is designed there?
 18 A. I think that's the pivot point for the pedal. But
 19 I'll go with ridge, but I don't know if I'd call it a
 20 ridge. A ridge would go all the way across.
 21 Q. Do you know why that elevated metal strip, we'll
 22 call it that, that goes in the middle of the
 23 compartment, do you why that was designed to be there?
 24 A. I do not.
 25 Q. And just so I'm clear. Have you in any way,

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1 whether it's a drawing, a model, a prototype, have you
 2 designed the floor board of a compartment yourself, and
 3 I know it would be a mock-up, that we can evaluate to
 4 determine precisely where you would put the pedals, how
 5 it would be designed, things of that nature?
 6 A. No. I told you I would defer to how it's already
 7 done.
 8 Q. Okay.
 9 A. And how everybody -- everybody else has already
 10 done it.
 11 Q. Okay. And is there any specific truck, when you
 12 say that, would you -- is there a specific truck you can
 13 point me to say the John Deere X Caliber 3 has the
 14 floorboard that I recommend that should be on the Crown
 15 5200?
 16 A. No. I provided several examples that in my mind
 17 would be sufficient.
 18 Q. Okay. But would you agree with me you're pulling
 19 portions of each one? I'm just asking you can you point
 20 to one, whether it's a Raymond, whether it's a Heister,
 21 that you would say this floorboard configuration is the
 22 one that Mr. Rasnic recommends that Crown should have
 23 used on the 5200 series forklift?
 24 A. Again, I think I've answered that. I've given you
 25 several examples, and I said that swapping your pedals

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1 around, in my mind, would be sufficient, because
 2 obviously the pedal that's already there has been
 3 researched in terms of its location.
 4 Q. Besides Crown just swapping its pedals, is there
 5 any other specific truck, and if you tell me it's the
 6 exemplar Raymond that you would recommend, I'll accept
 7 that?
 8 A. The location in all these other ones, in my mind,
 9 would suffice for addressing what the defect is in this
 10 case.
 11 Q. Okay. On any of these other models that you've
 12 evaluated, have you done field testing with operators to
 13 measure their stability, to measure forces, to measure
 14 their comfort and other things to determine if that is a
 15 design you would recommend?
 16 A. Forces, accelerations and all those are going to
 17 be the same, it doesn't make any difference. Comfort I
 18 have not evaluated.
 19 Q. Have you measured any of those other things,
 20 acceleration forces?
 21 A. No, I don't need to.
 22 Q. Okay. You mentioned the military standard on page
 23 14 of your report.
 24 A. Yes, sir.
 25 Q. And you considered that?

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1 A. I did.
 2 Q. And the military standard requires that stand-up
 3 rider forklifts have a left foot brake?
 4 A. Yes, sir.
 5 Q. Do you know why though?
 6 A. I didn't read the military standard. No, I
 7 didn't.
 8 Q. How did you determine without reading it that it
 9 had that requirement?
 10 A. From your responses.
 11 Q. Okay. Have you ever looked at any military
 12 standard regarding stand-up rider forklifts?
 13 A. I don't think so.
 14 Q. Okay. Have you seen any reference or materials
 15 that describe for you why they feel that, from a
 16 military standpoint, it's used in military situations
 17 that --
 18 A. I've looked at military standards before.
 19 Q. Have you reviewed any materials which explain or
 20 describe why the military specifications require a left
 21 foot brake pedal?
 22 A. No. It's immaterial. It's a military standard,
 23 it's not an industrial standard.
 24 Q. Okay. Would you agree with me that the military
 25 is a large purchaser of material handling equipment?

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1 A. In relation to who, the rest of the world?
 2 Q. I would say -- would you agree with me the
 3 military and U.S. military operations use material
 4 handling equipment in military warehouses and
 5 distribution centers throughout the country?
 6 A. I would.
 7 Q. In other words, these are not used on battle
 8 fields or only in Afghanistan, these military
 9 specifications apply to trucks that are used in the
 10 United States to move material within warehouses?
 11 A. They do.
 12 Q. Okay. Before I go on to the sensor pad, we've
 13 raised the door issue a couple of times.
 14 A. Right.
 15 Q. Have you or do you intend to offer an opinion
 16 whether a Crown stand-up rider forklift must be equipped
 17 with the operator compartment door or -- bad question
 18 again.
 19 Do you intend to offer an opinion at trial of this
 20 matter regarding whether or not an operator compartment
 21 door should be standard on Crown stand-up rider
 22 forklifts?
 23 A. I would defer to the other experts for that
 24 opinion. I would agree with them, but I wouldn't offer
 25 the opinion.

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1 Q. Okay.
 2 A. I think it makes it a safer machine. They've done
 3 a lot of analysis, more than I have, so I'll defer to
 4 them.
 5 Q. Do you intend to offer that opinion at trial?
 6 A. What opinion?
 7 Q. That the door would make it a safer design?
 8 A. I will defer to them on the opinions.
 9 Q. For instance, have you done your own safety
 10 analysis of the issue?
 11 A. No, other than reading their reports, I haven't.
 12 Q. Have you reviewed any injury potential testing
 13 regarding forklifts with doors?
 14 A. No.
 15 Q. Have you done any testing yourself on that issue?
 16 A. On doors, no, sir.
 17 Q. Okay. Have you ever designed, built or prototyped
 18 any type of door?
 19 A. For a forklift or others?
 20 Q. For a forklift.
 21 A. No.
 22 Q. Okay.
 23 A. I'm sorry. I have walkie forklifts, but that's
 24 not what you're talking about though.
 25 Q. Correct.

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1 A. Okay.
 2 Q. Stand-up rider forklifts such as that you've
 3 evaluated in this case?
 4 A. Thank you. I have not.
 5 Q. You've received reports. Have you received any
 6 reports from experts retained by Crown Equipment
 7 Corporation?
 8 A. Not that I know of.
 9 Q. When you say you would defer to these others, did
 10 you have any prior relationship with Mr. Berry?
 11 A. No, sir.
 12 Q. Have you ever met Mr. Berry?
 13 A. Prior to the inspection?
 14 Q. Yes.
 15 A. I may have been involved with him in another case,
 16 but I don't remember it specifically. I seem to
 17 recognize his name.
 18 Q. Do you know enough about him from your engineering
 19 dealings, that you would just naturally defer to him as
 20 someone that you have spent a lot of time with, and know
 21 his credentials and accept them?
 22 A. I have not.
 23 Q. How about Mr. Mark Elrod, have you ever met him
 24 before this case?
 25 A. No, I have not, not that I'm aware of anyway.

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1 Q. And Mr. Kennett, have you dealt with him in the
2 past?
3 A. I don't think so. Understand that there are a lot
4 of cases that I go to where there are a lot of experts
5 there.
6 Q. Sure.
7 A. And he may have been there, but I don't recall him
8 specifically.
9 Q. And that's what I'm trying to figure out. Is
10 there anything in particular about those individuals
11 which would make you defer to them because of prior
12 experience and knowledge of their qualifications and
13 credentials or their engineering acumen?
14 A. No, sir.
15 Q. Now, you also rendered an opinion regarding the
16 sensor pad, which is under the right foot of the Crown
17 design, correct?
18 A. Yes, sir.
19 Q. And I believe you state in your report that you
20 feel this should be switched to the left side?
21 A. Did I say that in the report?
22 Q. You did.
23 A. I said that to you in my --
24 Q. You did. Maybe I'm confusing myself.
25 A. Okay. Well, no. I think I talked about it in

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1 terms of the fact that it contributed to the accident by
2 causing it to lose steering.
3 Q. And you feel the pad should be larger?
4 A. Did I say that?
5 Q. Yes.
6 A. What page?
7 Q. You said it on page 13, actually 14 is where you
8 say that, middle of the page. A simple fix for this
9 issue, that would not affect the utility of the machine,
10 is to simply make the sensor pad larger and more
11 sensitive so that it stays engaged and enables steering
12 except when the operator actually intends to release it.
13 Do you see that?
14 A. What page?
15 Q. Page 16.
16 A. Okay. You put it in the context of larger and
17 more sensitive. That's what was throwing me. I don't
18 remember saying just specifically larger so.
19 Q. Okay.
20 A. I'm with you now.
21 Q. And do you have an opinion whether that sensor pad
22 should be under the right foot or the left foot?
23 A. Well, in this design it would be better for it to
24 be under the left foot, based on the brake issues. I'm
25 still trying to get my hands around why it's necessary

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1 to disable steering with a sensor pad.
2 Q. Okay.
3 A. In many other designs it's activated by the key
4 switch.
5 Q. Just so I'm clear. Your evaluation of this
6 machine is that when an operator is not in contact with
7 the sensor pad, if they raise their foot for whatever
8 reason.
9 A. Right.
10 Q. That disables power to the steering?
11 A. Yes, sir, the power steering pump, correct.
12 Q. And what did you evaluate to come to that opinion?
13 A. The manuals, the service manual and operator's
14 manual.
15 Q. Do you recall a portion of that where it says that
16 in the service and parts manual? Here's the entire
17 manual.
18 A. Okay.
19 Q. And by the way, and just for the record, the one
20 thing I did not identify that you brought, which I will
21 not mark as an exhibit, is the Crown Service and Parts
22 Manual. And you seem to have a real one. Did you get
23 this from Hugg and Hall?
24 A. I bought it, yeah.
25 Q. Bought it. Is there a portion of the service

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1 manual that you rely upon for your opinion that when an
2 operator is not in contact with the sensor pad, that
3 disables power to the steering mechanism?
4 A. Yeah. I wish I had marked it in here. Somewhere
5 in here it says that.
6 Q. Okay.
7 A. I believe switch P1, which is the lift, steering
8 and accessory hydraulic pump, which is to provide
9 hydraulic flow to operate steering is actuated by DMS1
10 interlock switch, which is located under the floorboard
11 right pedal.
12 Q. Okay. When an operator disengages from that pedal
13 what happens?
14 A. It's a continuous contact switch. It disables the
15 pump and prevents you from steering.
16 Q. And you believe that's a design defect?
17 A. I can't think of a reason why you would want to
18 disable with the pedal. When you turn the truck key on
19 you want to operate the truck. I can't imagine why you
20 would want the steering to be operative all the time.
21 So yeah, that's a defect.
22 Q. And in terms of the function of the switch and how
23 it operates, are you relying upon the service manual for
24 how that works, or have you done anything else? In
25 other words, when you inspected this did you see how the

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1 switch worked?
 2 A. I did not test for that, no, at the inspection.
 3 In fact, my focus was different in the inspection.
 4 Q. Okay.
 5 A. I don't believe Mr. Hernandez had been deposed at
 6 that time either.
 7 Q. So the entirety of that opinion is based on how
 8 that function is described in the service and parts
 9 manual?
 10 A. Yes, sir.
 11 Q. Okay.
 12 A. I believe it's described similarly in the
 13 operator's manual.
 14 Q. And you believe the truck should be designed to --
 15 do you believe the truck should be designed that if an
 16 operator takes their foot off the sensor pad, whether
 17 it's on the right or the left, that they should continue
 18 to have the ability to power steer or use power steering
 19 in their functions?
 20 A. I do. In fact, there are many truck designs, and
 21 we mentioned -- you mentioned this earlier, that only
 22 have one pedal.
 23 Q. Okay.
 24 A. And that exclusively controls only the braking
 25 function. It doesn't enable any of the other controls.

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1 That's what you do with the key switch.
 2 Q. And if Crown designed a pad where say the operator
 3 would take his foot off, and he or she would continue to
 4 have plugging, steering, electrical functions, that
 5 would satisfy your design concern in this situation?
 6 A. Yes, sir.
 7 Q. Now, do you believe in this particular case
 8 that -- you talked about you want the sensor pad more
 9 sensitive and larger in your report?
 10 A. I mention two things in my report, one is the
 11 intermittent fall possibility.
 12 Q. Okay.
 13 A. There doesn't seem to be anything to back up, in
 14 terms of the records at least, while it's intermittent,
 15 it may not be able to find it. If it is that sensitive,
 16 that a slight movement of the foot would cause it to
 17 disengage, then larger and more sensitive would make it
 18 a better design.
 19 Q. Have you designed, have drawings, prototyped,
 20 mock-up, or modeled, or developed a model for this
 21 larger more sensitive pad in any form?
 22 A. No. Again, I think it's intuitive. I've
 23 developed many switch engagement mechanisms in my
 24 career. In terms of sensitivity, it's all a function of
 25 the type of switch you use and how you set it. So it's

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1 not unique science.
 2 Q. But in this particular case --
 3 A. I have not made a prototype, no.
 4 Q. Okay. Now, from your review of materials and your
 5 analysis of the testimony in this case, have you seen
 6 any support that this truck experienced an intermittent
 7 failure which led to a loss of power?
 8 A. Unless it was on that particular accident day, no.
 9 There's no invoices or work orders that show this
 10 problem occurring that I could find, prior to this
 11 accident.
 12 Q. Do you know what happens to a Crown 5200 series
 13 forklift if there is a failure of power steering for
 14 traction, do you know what happens to the truck?
 15 A. Well, other than the obvious, it won't steer and
 16 you can't make it move either direction.
 17 Q. But does it shut itself down, does it continue to
 18 allow the operator to accelerate?
 19 A. Your question, again, you're talking about the
 20 right sensor pad?
 21 Q. Yes.
 22 A. I lost your question in that explanation.
 23 Q. You talked about a potential intermittent
 24 failure --
 25 A. Right.

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1 Q. -- of some power function?
 2 A. Correct.
 3 Q. Do you know how this truck is designed to address
 4 any failures or disturbances in an electrical function,
 5 does it continue to operate otherwise, does it shut
 6 down, or what does it do?
 7 A. There are too many unknowns there to tell you what
 8 it does every time. I think it depends on the
 9 circumstance. If you blew -- if you blow a fuse it
 10 will -- if you don't blow a fuse it could shut down. It
 11 depends on the type of fault. I can't answer that
 12 question.
 13 Q. Say an operator loses the ability to plug.
 14 A. Okay.
 15 Q. If something happens where there's a malfunction
 16 of the plugging, do you know what would happen to the
 17 operation of this truck?
 18 A. It would decelerate. After that you mean?
 19 Q. What would the truck do?
 20 A. It depends on the type of fault.
 21 Q. Do you know whether or not it would display a
 22 fault code?
 23 A. It might, depending on how it's -- depending on
 24 the type of fault it had, if that's picked up by the
 25 control.

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1 Q. Do you know whether or not any fault codes were
 2 displayed here?
 3 A. There were not when we looked at it.
 4 Q. Okay. Do you know if any were determined at the
 5 time?
 6 A. They were not.
 7 Q. Okay. In other words, it was looked at and there
 8 were no fault codes that were shown at the time of the
 9 accident?
 10 A. I'm not sure that -- my recollection from talking
 11 with mechanics, is that they just find the fault code
 12 and fix it, and they don't record the fault code.
 13 Q. Okay.
 14 A. Or something to that effect during the inspection.
 15 Q. But after this accident, did anyone find a fault
 16 code that you're aware of?
 17 A. I don't have any work orders of anything that
 18 would tell that, that happened after the accident.
 19 Q. Now, you also have an opinion regarding the -- let
 20 me ask you now what I was going to ask earlier. In
 21 terms of the sensor pad, you've told us you don't have
 22 evidence of an intermittent failure. And I'm just
 23 trying to get a hand on your opinion. Will you testify
 24 that if this sensor pad would have been larger and more
 25 sensitive, that that design change would have prevented

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1 this accident?
 2 A. In its location that it's in now?
 3 Q. Yes.
 4 A. If it was larger and more sensitive, that's my
 5 opinion, yeah.
 6 Q. Okay.
 7 A. Because I don't think it was an intermittent fault
 8 because I don't have any evidence of that.
 9 Q. Okay. So let me break that down a little. You
 10 don't feel it was an intermittent fault here because you
 11 don't have any evidence of that?
 12 A. Correct.
 13 Q. So you feel that the disengagement from the sensor
 14 pad contributed to the happening of this accident?
 15 A. Exactly.
 16 Q. So that was correct?
 17 A. Yes, sir.
 18 Q. In your report you kind of say you don't -- bad
 19 question again.
 20 So you feel in this case that an explanation for
 21 why he lost steering is, for whatever reason, he
 22 disengaged from the power on pad on the right foot, and
 23 that caused a loss of steering and ability to control
 24 the truck?
 25 A. Yes, sir. In the -- in the absence of any other

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1 information about a fault of some sort.
 2 Q. Okay. And to that point, in this case you don't
 3 have any information which would support an opinion that
 4 this was an intermittent failure of the power system?
 5 A. I don't one way or the other, that's correct.
 6 Q. Okay. You then also talk about the backrest
 7 feature?
 8 A. Yes, sir.
 9 Q. And I believe you opine that the operator backrest
 10 should be extended into the opening more?
 11 A. Or the pad style changed. It's very -- it's like
 12 a slope right now.
 13 Q. Okay.
 14 A. So there's really no resistance to somebody
 15 sliding on the pad.
 16 Q. And regarding the operator backrest, have you
 17 completed design drawings, built, prototyped or done a
 18 model of the operator backrest that you would recommend
 19 on the Crown 5200 series forklift?
 20 A. I think I said in the absence of a door, I
 21 believe.
 22 Q. Okay.
 23 A. No. I have my experience with the Prime Mover one
 24 that resisted my movement better than the Crown would.
 25 Q. And is that your opinion, that Crown should adopt

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1 the backrest on the Prime Mover, or that's what I'm
 2 trying to figure out? Are you going to say at trial
 3 that the Prime Mover, that backrest is exactly what I
 4 think Crown should have done on the 5200?
 5 A. Actually I'm trying to give you several ways that
 6 you could address this accident.
 7 Q. Okay.
 8 A. If you're not going to do -- I prefer the pedal,
 9 but the door obviously is the best way.
 10 Q. Okay.
 11 A. Movement of the pedal, if you have the pedal
 12 moved, then you may not need to do anything to the
 13 backrest. If you're not going to do it that way, you're
 14 going to leave the pedal where it is and leave the
 15 controls the way they are, and leave the door off, then
 16 you should provide a better backrest wrap to provide
 17 some resistance to rearward motion, if you're not going
 18 to do all the rest of them or any of the rest of them.
 19 Q. And have you done any testing, stability testing,
 20 scientific testing on a stand-up rider forklift with
 21 this extended backrest, to determine the stability it
 22 provides compared to the stability in a Crown stand-up
 23 rider forklift with the backrest as it exists?
 24 A. Only with regard to the Prime Mover. I haven't
 25 done it independent of that.

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1 Q. And that was your operation?
 2 A. Yes, sir.
 3 Q. Have you done any testing which gives us any data
 4 points, any measurements that we can evaluate to
 5 determine the stability of that compartment versus the
 6 Crown compartment you're comparing it to?
 7 A. No, I have not.
 8 Q. Do you have an opinion regarding if Crown would
 9 have extended the backrest, whether or not that would
 10 have prevented Mr. Hernandez's accident?
 11 A. If there is a backrest that provided resistance to
 12 rearward motion, then it would have prevented the
 13 accident.
 14 Q. Can you just tell me how much farther it should be
 15 extended then?
 16 A. I'm not necessarily advocating the extension. I'm
 17 advocating more of something that would give the
 18 operator something to catch against, as opposed to just
 19 a flat surface that allows them to slide right out.
 20 Q. Any dimensions you can give me, whether it's cut
 21 out this, extend it, make it deeper in the compartment,
 22 anything you can give me now, as you sit here, to
 23 support the --
 24 A. What I would have in mind, sitting here as we're
 25 talking, is where the current backrest terminates,

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1 putting another pad on there that has a step on it. So
 2 that if you slide against that, you're at least provided
 3 some resistance so that you don't go out the back of the
 4 machine.
 5 Q. Okay.
 6 A. And that essentially would be just a rectangular
 7 pad that would sit next to the other one. And it could
 8 be incorporated inside or mostly inside the resisting
 9 pad footprint.
 10 Q. And again, do you have any drawings, prototypes or
 11 models of that?
 12 A. No.
 13 Q. The control configuration, in your report on page
 14 17 you identify -- you photograph a Prime Mover RDX 30
 15 Speed Direction Control Joystick and Handrest?
 16 A. Correct.
 17 Q. And do you feel that Crown's control configuration
 18 with the steering tiller and the multi-function control
 19 is defective and unreasonably dangerous?
 20 A. That in itself?
 21 Q. Yes.
 22 A. I do not.
 23 Q. Do you recommend that Crown install a handrest and
 24 joystick as identified in figure 11 on Crown 5200 series
 25 stand-up forklifts?

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1 A. I'm not advocating one or the other. I don't have
 2 a problem with their controls, I have a problem with
 3 their controls in conjunction with the other items I've
 4 already discussed.
 5 Q. Okay.
 6 A. All I'm showing here is that there is an alternate
 7 control configuration which provides more resistance to
 8 deceleration forces with an open back machine.
 9 Q. And on that point, have you done any studies or
 10 tests to compare the stability of the operator controls
 11 on the Prime Mover RDX 30 compared to the Crown 5200
 12 series control configuration?
 13 A. I think your question is not correct. Stability
 14 of the control is not really what you want, it's the
 15 stability of an operator using those type of controls, I
 16 think.
 17 Q. Correct. I'll start again.
 18 A. Okay.
 19 Q. Have you done any tests or studies with recorded
 20 data, information another engineer could process,
 21 comparing the operator's stability in a compartment with
 22 the control configuration of the Prime Mover setup
 23 compared to the Crown 5200 control configuration?
 24 A. An engineer could process the difference in these
 25 designs, in terms of the fact that you hold onto this

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1 pad versus you don't on the -- you hold onto a movable
 2 handle on the Crown design.
 3 Q. Okay.
 4 A. My testing is my operation of the machine in
 5 similar circumstances of hard braking with the emergency
 6 brake.
 7 Q. Other than your operation of the machine, have you
 8 done any testing that provided recordable data results,
 9 data from accelerometers, et cetera, that recorded the
 10 stability or the accelerations one would experience in
 11 the Prime Mover type control configuration versus the
 12 Crown 5200 control configuration?
 13 A. No accelerometer, no.
 14 Q. Any recorded data whatsoever?
 15 A. No.
 16 Q. Okay.
 17 A. Again, it would be intuitively obvious to an
 18 engineer regarding the stability differences with regard
 19 to this design and the other one.
 20 Q. And if I'm looking at the joystick and handrest on
 21 figure 11, so I understand it.
 22 A. Okay.
 23 Q. The top of that joystick, what is the curved
 24 out -- what do you put there?
 25 A. Your thumb.

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1 Q. And you put your hand around the other?

2 A. Yes, sir.

3 Q. And would you agree with me that your hand can

4 slide sideways, there's nothing stopping it, in other

5 words?

6 A. Well, your thumb is down below the side, the left

7 side of the pad. So could it slide, not likely. Hand

8 sliding is going to be in the direction perpendicular to

9 the direction of travel. You can slide it to different

10 positions on there, that's correct.

11 Q. Is this a side stance operated machine?

12 A. It is.

13 Q. Fore aft?

14 A. Yes.

15 Q. It's a side stance?

16 A. Yes, sir.

17 Q. Okay. And what is the -- what is that handrest

18 made of, what is the friction device, is that leather,

19 is it plastic, is it --

20 A. It felt like hard rubber, or not really a hard

21 rubber, more of a soft rubber pad to me.

22 Q. If Crown would have had that control

23 configuration, as opposed to the one we have in our

24 5200, do you believe that would have prevented

25 Mr. Hernandez's accident?

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1 A. I do.

2 Q. Okay. And what is that based on?

3 A. Based on again physics and my personal operation

4 of both designs.

5 Q. Okay. Anything else?

6 A. No, sir. Well, my knowledge, education and

7 training.

8 Q. And last, and you correct me if I'm wrong, in

9 reading your statement, you also say that Crown did not

10 provide any personal protective equipment with the truck

11 to reduce the severity of this hazard?

12 A. Correct.

13 Q. Do you have an opinion -- I didn't get this one,

14 so I'm just going to ask you. Do you have an opinion

15 that Crown should have required or recommended to

16 operators that they wear some personal protective

17 equipment when they operate a Crown stand-up rider?

18 A. No. All I was trying to do there was tie it back

19 to the design hierarchy.

20 Q. So you won't be coming to trial and saying, Crown

21 should have issued steel-toed shoes?

22 A. That wouldn't have made any difference.

23 Q. Okay.

24 A. No, I will not.

25 Q. Okay. You also address in your report Crown's

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1 warnings. I want to just get a handle on those.

2 A. Okay.

3 Q. Do you feel that Crown's warnings were in any way

4 defective or unreasonable?

5 A. Let me get to the warnings part.

6 Q. I don't see a lot on it, but you mentioned it in

7 your design hierarchy. And I'm just trying to figure

8 out if you're going to come to trial and say here's what

9 warnings I recommend and Crown didn't do it?

10 A. No. The only point of this is that there is a --

11 there are design priorities related to safety

12 effectiveness that are available, that were not

13 followed. And warnings was not -- it's the third most

14 effective. I would never advocate that over a design

15 change or a guard.

16 Q. Will you come to trial and say, Crown's warnings

17 in this case were defective and inadequate?

18 A. That's not my intention. My only point of putting

19 that in the report is that if you're not going to design

20 the hazard out, or if you're not going to guard against

21 the hazard, then you should provide very explicit

22 warning language to alert the operator to this potential

23 hazard. I haven't thought about what that warning would

24 say, but generally along those lines. It needs to be

25 something that's highlighted.

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1 Now, the reason warnings are not generally

2 effective is they either become numb to the warning, or

3 the operators don't read them or they don't understand

4 them. That's why I wouldn't advocate that over the

5 other two.

6 Q. Have you developed any candidate warnings or

7 alternative warnings that you intend to offer in this

8 case?

9 A. No.

10 Q. Okay. If Crown would have had a different set of

11 warnings, do you believe it would have prevented this

12 accident?

13 A. I think I'll give you a maybe on that. Again, it

14 depends on whether it's read and understood and heeded.

15 That's the problem with warnings.

16 Q. Do you have an opinion, to a reasonable degree of

17 engineering certainty, that if Crown would have said,

18 when you decelerate you may experience some forces that

19 disturb your balance, be careful?

20 A. Do I think if it had that nature of warning that

21 it would have prevented the accident, I can't say that

22 with a reasonable degree of engineering certainty.

23 Q. Okay. And you also talk about training in your

24 hierarchy. I just want to determine. Have you been

25 asked to offer any opinions regarding Mr. Hernandez's

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1 specific training in this case?
 2 A. No.
 3 Q. Have you been asked to offer any opinions
 4 regarding the adequacy or inadequacy of Crown's training
 5 materials that can be used by employers?
 6 A. No, sir.
 7 Q. Would you agree with me that stand-up rider
 8 forklifts are used in many different functions
 9 throughout distribution centers and warehouses across
 10 this country?
 11 A. I would.
 12 Q. That they can be used around docks?
 13 A. Yes.
 14 Q. They can be used around racks?
 15 A. Yes.
 16 Q. Would you agree with me that stand-up rider
 17 forklifts can in certain situations go off docks and
 18 result in accidents in that regard?
 19 A. I can agree with that.
 20 Q. They also can become involved in tipovers?
 21 A. They can.
 22 Q. Will you agree with me that off the dock accidents
 23 present a life threatening injury potential to an
 24 operator of a stand-up forklift?
 25 A. They can.

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1 Q. And with a tipover, would you agree with me that
 2 if an operator is involved in a tipover accident, that
 3 presents a life threatening injury potential to that
 4 operator?
 5 A. It can.
 6 Q. Would you agree with me that off the dock
 7 accidents can occur in a split second?
 8 A. I think that any accident can occur in a split
 9 second.
 10 Q. So that would include off the dock accidents?
 11 A. Sure.
 12 Q. Tipover accidents can occur in a split second?
 13 A. Well, split second is kind of a subjective term.
 14 Q. Very, very short period of time?
 15 A. They can depending on the speed.
 16 Q. In terms of your statement on the door issue. Do
 17 you feel as an engineer you have evaluated that issue
 18 sufficiently to allow you to come to court and render an
 19 opinion, to a reasonable degree of engineering
 20 certainty, whether or not stand-up riders should be
 21 equipped with doors?
 22 A. Have I personally. No, I have not.
 23 Q. Okay.
 24 MR. CULLEN: Why don't we take five
 25 minutes.

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1 A. Okay.
 2 MR. WARSHAUER: Okay.
 3 (A recess was had.)
 4 BY MR. CULLEN (CONT.):
 5 Q. Just a few additional questions. The Prime Mover
 6 truck, starting with that that we looked at in your
 7 report on page 17. You told us you operated that truck.
 8 Did you do it in conjunction with this case?
 9 A. No, another case.
 10 Q. And when was that?
 11 A. I would say late last year.
 12 Q. Okay.
 13 A. Probably in the October November time frame.
 14 Q. Okay. It was after you inspected the Crown truck?
 15 A. Yes, sir.
 16 Q. So in November or December of 2013, you operated
 17 the Prime Mover truck in conjunction with another legal
 18 matter?
 19 A. Yes, sir.
 20 Q. And in that case did you have design opinions
 21 regarding the Prime Mover truck?
 22 A. I did not.
 23 Q. Okay. Was it --
 24 A. That case is -- I'm not to an opinions point on it
 25 yet.

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1 Q. Okay.
 2 A. But I don't anticipate that I will.
 3 Q. Okay. So on that case where you operated the
 4 Prime Mover, you haven't finally evaluated what your
 5 opinions will be in that case in the design or the
 6 construction process?
 7 A. Correct.
 8 Q. Okay. Is it a lower left leg injury?
 9 A. Say it again?
 10 Q. Is it a lower left leg injury?
 11 A. No, it is not.
 12 Q. Okay.
 13 A. Well, let me think about that. I don't recall the
 14 injury. I don't think it is.
 15 Q. Do you know the accident scenario?
 16 A. I don't remember.
 17 Q. A tipover?
 18 A. Not a tipover. It was -- it was a collision of
 19 some sort. I don't think it was -- I think it was an
 20 upper body injury.
 21 Q. Okay. Have you operated the Prime Mover truck
 22 since I guess your evaluation and your inspection in
 23 that legal matter?
 24 A. I'm not following you.
 25 Q. Have you operated a Prime Mover stand-up rider

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1 truck, similar to or identical to that truck, since your
 2 inspection and your evaluation in that legal matter?
 3 A. No, sir.
 4 Q. Okay.
 5 A. Are you talking about an exemplar in addition to
 6 this one?
 7 Q. Yes.
 8 A. Okay. No, I have not.
 9 Q. The Raymond truck that you photographed on page
 10 14.
 11 A. Yes, sir.
 12 Q. Is that a -- first of all, it's a stand-up rider
 13 forklift, correct?
 14 A. Page 14?
 15 Q. Yes.
 16 A. It is a stand-up rider, yes, sir.
 17 Q. And did you evaluate that truck in connection with
 18 a legal matter?
 19 A. Yes, sir.
 20 Q. And --
 21 A. It was in anticipation of a legal matter. And I
 22 didn't find any problem with it, so the matter is done
 23 now.
 24 Q. Okay. So this was a Raymond stand-up rider truck?
 25 A. Yes.

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1 Q. Do you know what type of accident was involved,
 2 was it a tipover?
 3 A. It was a collision with a rack. I do remember
 4 that one.
 5 Q. Okay. This Raymond truck had an open compartment
 6 design?
 7 A. It did.
 8 Q. Did you find any design defects with the Raymond
 9 truck?
 10 A. I did not.
 11 Q. And when did you evaluate this truck, when did you
 12 look at this truck?
 13 A. Several years ago. Probably four or five at
 14 least.
 15 Q. The Prime Mover stand-up rider that you evaluated,
 16 did it have the open compartment design?
 17 A. It did.
 18 Q. Besides what we have gone through today now, and
 19 I've added the service and parts manual, have you
 20 reviewed, analyzed or evaluated any other materials in
 21 coming to or forming your opinions in this matter?
 22 A. No, sir.
 23 MR. CULLEN: I have no further questions.
 24 A. Thank you.
 25 MR. WARSHAUER: Thank you.

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(WHEREUPON, the above-entitled deposition
 was concluded at 12:35 p.m.)

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CERTIFICATE

STATE OF ARKANSAS*
 SS *
 COUNTY OF SALINE *

I, JEFF BENNETT, Certified Court Reporter, a
 Notary Public in and for the aforesaid county and state,
 do hereby certify that the witness, RUSS RASNIC, was
 duly sworn by me prior to the taking of testimony as to
 the truth of the matters attested to and contained
 therein; that the testimony of said witness was taken by
 me in machine shorthand notes and was thereafter reduced
 to typewritten form by me or under my direction and
 supervision; that the foregoing transcript is a true and
 accurate record of the testimony given to the best of my
 understanding and ability.

In accordance with Rule 30(e) of the Rules of
 Civil Procedure, review of the transcript was requested
 by the deponent or a party thereto.

I FURTHER CERTIFY that I am neither counsel for,
 related to, nor employed by any of the parties to the
 action in which this proceeding was taken; and, further,
 that I am not a relative or employee of any attorney or
 counsel employed by the parties hereto, nor financially
 interested, or otherwise, in the outcome of this action;
 and that I have no contract with the parties, attorneys,
 or persons with an interest in the action that affects
 or has a substantial tendency to affect impartiality,
 that requires me to relinquish control of an original
 deposition transcript or copies of the transcript before
 it is certified and delivered to the custodial attorney,
 or that requires me to provide any service not made
 available to all parties to the action.

GIVEN UNDER MY HAND and SEAL OF OFFICE on this
 27th day of April, 2014.

Jeff Bennett, CCR, LS No. 19, Notary
 Public in and for Saline County, Arkansas
 My Commission expires November 29, 2020.

PAGE #	LINE #	ERROR	CORRECTION & REASON
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REPORTER'S CERTIFICATION OF CERTIFIED COPY

I declare under penalty of perjury under the laws of the State of Arkansas that the foregoing is true and correct.

Dated this 27th day of April, 2014.

Jeff Bennett, CCR, LS No. 19, Notary

Public in and for Saline County, Arkansas

My Commission expires November 29, 2020.

WITNESS SIGNATURE PAGE

I, RUSS RASNIC, the witness, hereby certify that I have thoroughly read the transcript of my deposition taken on the 15th day of April, 2014, and have made any necessary changes or corrections to make the transcript a true and accurate accounting of my testimony given on that day.

Signature

Date _____

STATE OF *
* SS.
COUNTY OF

SUBSCRIBED AND SWORN TO before me, a Notary Public
in and for _____ County, _____.
Given under my hand and seal of office on this _____ day
of _____, 2014.

My commission expires _____